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Letters of Montgomery Meigs written while engaged in the survey of the Northern Pacific Railroad 1872-1873

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LETTER OF MONTGOMERY HEICS
WRITTEN WHILE ENGAGED IN
THE SURVEY OF THE NORTHERN PACIFIC RAILROAD
1872-1873
by
Elizabeth Joan Rodgers Atwater, B.A. State University of Montana, 1936

Presented in partial fulfillment of the requirement for the degree of Master of Arts

State University of Montana
1937

Approved:

[Signatures]

Chairman of Board of Examiners.

Chairman of Committee on Graduate Study

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Introduction

The building of the Pacific Railroad was the realization of the desire of almost four hundred years for a direct Western passage to Asia. This desire expressed itself first in the search by sea for the mysterious strait of Anian and for the Northwest passage. With the occupation of the continent of North America the search was continued for a direct route by means of inland waterways. Every nation that was ever dominant over the interior was zealous for some means of establishing direct commercial intercourse with China and other countries in the Far East. The French, notably La Salle, the Verendyres, La Harpe, Du Tisne and Fabry explored the interior primarily for the purpose of establishing an inland commercial route across the continent.

As the American nation grew it also was not inactive in a desire to open up a commercial route to Asia. In 1783 Thomas Jefferson planned an expedition under George Rogers Clark to discover a path across the Rocky mountains to connect the Missouri with Pacific tide-water, but it was not for years that this plan matured.

In 1786 Jefferson did succeed in dispatching Ledyard

2. Thwaites, Original Journals of Lewis and Clark Expedition VII, pt. 1, appendix I.
to Kamchatka with the purpose of crossing the Pacific and exploring the route from the West, but this plan also failed because of Russian interference. In 1790 the General Henry Knox expedition was a failure, and in 1793 the Michaux expedition also failed. In 1804 - 6 when Lewis and Clark were successful in making the journey to the Pacific coast the chief promoter of the scheme, Jefferson, was no longer in a position in which he could devote much time or energy to further the practical side of the development and exploration of the West.

When the American settlements had succeeded in crossing the eastern coastal mountains expansion westward grew more rapid. Men in the public eye began to talk of the necessity of a commercial route from coast to coast. By 1817 much attention had been turned to exploration, and Senator Benton had conceived a plan to establish a commercial route leading up the Missouri and down the Columbia. He was very enthusiastic over the idea, agitated for it, and collected information concerning the route from the hunters, traders and trappers who were yearly penetrating deeper into the West.

By 1819 settlement had reached the Great Bend of the Missouri, and trade had been opened with Santa Fe and the interior provinces of Mexico. By 1845 settlements had been made in Oregon, and the late 40's saw the discovery of gold in California attract a rush of settlers to the West. The

1. Ford, ed. Writings of Thomas Jefferson, quoted Albright p. 3.
2. Albright, p.4.
The first suggestion for transcontinental transportation seems to have been submitted to Congress by Robert Mills in 1819. He proposed that Charleston, South Carolina, be connected with the Pacific Ocean by a series of canals and natural waterways, up the Mississippi and Missouri to the Great Falls, and "thence passing through the plains and across the Rocky mountains to the navigable waters of the Kooskooskee River, a branch of the Columbia, three hundred and forty miles." The proposed route is evidently based on the Summary Statement of Distances compiled by Lewis and Clark.

The Santa Fe trail and the other trail from Fort Leavenworth along the Platte, by South Pass, and down the Snake into Oregon, and the trail across the Nevada desert and along the Humboldt into California, inadequate as they were, had by the time of the Mexican War revealed the possibility and early necessity of railroad routes from ocean to ocean. When the agitation for a Pacific Railway commenced there were these beaten tracks connecting the Missouri River and the Pacific Ocean. There were various excellent

1. Albright, p.5.
reasons for a transcontinental transportation facility that were advanced by its advocates. Among the most important and valid were the trade possibilities with the Far East, rapid communication with the Oregon settlers, the defence of the settlements on the Pacific coast from foreign nations and from secession, and rapid transportation of public and private supplies to the new settlements. The great obstacle in the way of any scheme, canals, railroads, etc., was the strong sectional feeling of the older states. No section of the country was willing to give up the terminal of such a highway to any other section, and so the battle raged in Congress, hindering the building of a railroad until the secession of the South made a northern or central compromise terminus possible.

It is impossible to be certain of the first person to suggest the possibility of a railroad to the Pacific coast. The idea doubtless occurred to many thoughtful people about the time of the building of the first railroads in the Atlantic states. There was then a great enthusiasm over the new mode of transportation, and it would be only natural for the optimists and dreamers to predict that the day would come, sooner or later, when the two shores of the continent would be joined by a railroad. No special credit would attach to such a prediction, but credit is certainly due to

1. Albright, p. 6.
2. Ibid. p. 7.
the man who first publicly advocated a Pacific railway as a scheme which should be immediately carried out, and carefully estimated the cost and advantages. That man is believed to have been Dr. Samuel Bancroft Barlow, a practising physician living in Granville, Mass. Dr. Barlow began as early as 1834 to write articles for the newspapers in favor of the general government undertaking the construction of a railroad from New York City to the mouth of the Columbia River. He kept up his active interest in the subject, and his newspaper contributions were continued for many years. In an article to the Westfield, Mass., Intelligencer written between 1834 and 1835 he suggested that the government make surveys for the road, and as soon as the Federal debt was paid (which happened in 1835) the money used for that purpose be diverted to the construction of a railroad whose cost he estimated at thirty million dollars. A railroad across the Rocky Mountains was one of Hall Kelley's dreams, and to him it seemed an entirely simple proposition, but his contemporaries thought it as visionary as a railway to the moon.

The project was first systematically brought to the attention of the people in the middle of the 40's by the constant lobbying of Asa Whitney. Before that, in addition

2. Ibid. p. 53.
to Dr. Barlow's newspaper articles there appeared in 1832 an article in the Ann Arbor Emigrant which suggested for the first time the idea of a railroad from New York to the mouth of the Columbia. Dr. Barlow's articles appeared mostly in 1834 and 1835. In 1836 and 1837 John Plumbe, an engineer from Minnesota took up the idea with vigor, and in 1838 the first public convention held to discuss the Pacific Railroad project met in Dubuque, Iowa, on March 31. Resolutions were drawn up asking Congress to aid by appropriating funds, and were laid before that body; the territorial delegate, with the result that funds were set aside to make a survey from Milwaukee to Dubuque.

In spite of all this action Asa Whitney is the man to whom most credit is due for the spread and national acceptance of the idea of a transcontinental railroad as a practical thought. He conceived the first definite plan and pointed out the route to be followed, the means of construction, and the immediate necessity of the work. His proposal, for a northern road from Lake Michigan to Oregon, first made public in 1844 was for more than eight years persistently urged upon the attention of Congress and the people, but was doomed to defeat in the end. He introduced his plan into Congress in 1847-1848, and then toured the country, winning the support of most of the state.

1. Albright, p. 7-9
governments. From 1848 to 1851 the plan was debated in Congress, and success looked near, but with the growth of the sectional feeling, and the development of new plans for building the railroad Whitney's plan fell more and more into the background, and the bill was finally tabled due to the action of the Senate in favor of a national highway. The discovery of gold in California had rendered some form of transportation necessary. The prairie schooners of the emigrants soon determined the shortest route to California, and a well-defined trail from Westport Landing to Salt Lake via South Pass, and thence by the Humboldt and Truckee Rivers to the Sacramento Valley indicated the line of least resistance, which came to be the one most favored.

Once launched in Congress the Pacific Railroad movement had inherent vitality enough to keep alive. The peace with Mexico soon afterward added to the domain of the United States the vast area now comprised in the states of California, Nevada, New Mexico, Arizona, and Utah. This conquest of territory to the south opened up the possibility of a southern line to satisfy the hordes of settlers who were following the call of gold and lands to the West. From the time of this general recognition of the desirability and possibility of a transcontinental railroad, the

1. Smalley, pp. 57-66
Coman, p. 353.
Albright, pp. 10-18.
question of routes assumed great importance in the public mind. It was on this point that all the worst phases of sectionalism were allowed to show themselves, and as has been pointed out before, this feeling delayed the construction of a transcontinental railroad for many years.

Towards the close of Whitney's efforts in Congress his project was sharply antagonized by several rival schemes, the most conspicuous of which, because it was supported by William H. Seward, was the "National Pacific Railroad" plan, devised by George Wilkes of New York. Its original feature was the election of commissioners by the legislatures or the people of the several states, to form a board to build and manage the road. Mr. Wilkes was not so much concerned with the route as he was with the form of organization of the company.

In 1850 a bill was introduced into Congress for a government owned and operated railroad. A strip of land one hundred miles wide was to be reserved from St. Louis to San Francisco, following the central route of Fremont's explorations. Strips of land were also to be reserved for the construction of branch lines to Santa Fe and the mouth of the Columbia River. The money was to be derived from customs duties, the sale of public lands, and loans. This plan was supported by Senator Benton, an extremely powerful man in Congress, and had many adherents until he

l. Smalley, p. 66.
went out of the Senate, and the plan, lacking his ardent support, died a natural death. This plan was opposed by some for the same reason as Whitney's. It fixed the route too arbitrarily. It was also opposed because many politicians feared a national operation of railroads as a powerful political machine and a national source of corruption.

Another route was proposed in the fall of 1849, as a compromise route, at a Pacific Railroad convention held in St. Louis and presided over by Stephen A. Douglas. This proposed route went from Independence, Missouri, to the South Pass, and thence by way of the Humboldt River to California, with a branch to Oregon and a terminus at Yaquina Bay, and others at Fort Vancouver, on the Columbia, and Fort Nisqually on the Sound.

Edwin F. Johnson took up the promotion of the northern route after it was abandoned in despair by Whitney. He regarded it from the standpoint of an engineer, rather than from that of an idealist of a speculator. He was one of the great engineers of his time, and was well acquainted with much of the land that the northern route proposed to traverse through reading army reports and other papers on the subject, and talking with everybody he could find who had information about the country. Associated with Johnson was the capitalist and builder, Thomas H. Canfield, of

1. Albright, pp. 20-23.
2. Smalley, p. 67.
Walker explained Johnson's views as favoring the Northern route to Secretary of War Jefferson Davis, who was an ardent advocate of the Southern line. Davis knew the power of Johnson's fine reputation as an engineer, and this may have been the reason for his haste to arrange that the surveys planned by the government be placed under the direction of his own department.

In a book published in 1853 Johnson detailed his route. It went from Chicago, with a branch to the head of Lake Superior joining at Breckenridge on the Red River of the North, crossed the plains to the Missouri, followed the North bank of that river and the Dearborn River to the Mountains, and thence ran to Flathead Lake and Fort Colville, and ended at Bellingham Bay on Puget Sound. On his map he also traced the isothermal lines, showing that there was not apt to be as heavy snowfalls in the mountains as was claimed by the opponents of the northern line. He also called attention to the low altitudes of the passes between the headwaters of the Missouri and those of the Columbia.

Johnson included in his book arguments showing the advantage of the northern route over any other, many of which are still true today. He spoke of the connection with

1. Smalley, p. 69.
2. Ibid. p. 73.
the Great Lakes, and the trade carried on them, of the ad-

vantage of a northern terminus on the Pacific coast in the

matter of trade, of the location of the line along the

navigable waters of the Missouri and the Columbia, which

would aid in construction besides contributing to the

support of the finished road, of the connection with the

navigable waters of the Red River of the North, down which

came much of the produce of the interior. He mentioned also

the small grades due to the passes chosen, and the conse-

quent cheapness of construction, the freedom from deep snows

in winter as compared with the 42° route, and the great

agricultural, mineral and forest wealth of the land through

which the line would pass. He pointed out that the country

surrounding the projected line would be capable of support-
ing a larger population than that tributary to any other

suggested route, and that the line was the most direct route
to these Pacific ports which were one end of the most direct

route to the Orient, and that the terminal Pacific port

offered innumerable opportunities for the coastwise trade.

The other popular route was the Southern. It was ad-
vocated by Colonel Gadsden, the president of the South

Carolina Railroad Co., Robert Patterson, editor of the Con-
cordia Intelligencer, and Professor Forshey of Louisiana,

who suggested it in the first place. The route was to go

from Vidalia in Louisiana to Lowe's Ferry on the Sabine

1. Ibid.p. 74.
River, and from there directly to Texas across the Rio Grande at Presidio, thence to Monclova and by way of Parras to Mazatlan on the Gulf of California. It was generally conceded in California by persons possessing a knowledge of the country through actual observation, that the Southern route had claim to many advantages, and was superior to that through the South Pass proposed by Whitney.

As the sectional difficulties increased so did those of the railroad promoters. There was little interest in schemes of national development and the schemes for the railroad languished. They produced one result however. The government determined to survey four routes to the Pacific with a view to learning whether a railroad by any or all of them was feasible. In this survey the Northern route had to be included, though the Southern statesmen, then at the head of affairs in Washington, had no liking for it nor confidence that it would prove practicable.

Whitney's plan was now definitely in the discard for many reasons. It was opposed by skeptics who thought any plan of transcontinental transportation too vast to be practical, and that there was not enough business to support a railroad at any but prohibitive rates. It was also opposed by those who thought Whitney asked for too large a grant of

1. Albright, p. 11
2. Smalley, p. 66
land and that he sought to gain power through control of so vast an enterprise. It was also opposed by those who were interested in other schemes such as an Isthmian canal, the southern route, and the speculators in soldier's land warrants. Add to these the sectional opposition and it is easy to see why Whitney gave up.

Looking back now at the efforts of the three main early advocates of the Northern route for a railroad to the Pacific, we see that Dr. Barlow presented the project in its theoretical and patriotic phase; that Mr. Whitney gave it the form of a public movement, and brought it to the attention of Congress and the State Legislatures; and that Mr. Johnson placed it upon a practical basis by bringing to bear the experience and special studies of a competent engineer, and showing the actual advantages of the route for railroad construction, and the value of the country for settlement. All this work seemed to have been for nothing when the plan produced nothing but the including of the Northern route in the government surveys, but it was to be of great value at a later time.

Thus by 1852 there had been six distinct routes especially urged upon Congress. They were:

1. Asa Whitney's route from Lake Michigan to South Pass to the mouth of the Columbia with a branch to San Francisco.

2. Benton's route from St. Louis to San Francisco through

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2. Smalley, p. 76.
some pass to be discovered south of South Pass.
3. The St. Louis Compromise route, which was the same as Benton's but went through South Pass.
5. Mill's route from Van Buren to El Paso del Norte and San Diego with branches to Memphis, St. Louis and Vicksburg.
6. The Atlantic and Pacific Route from Vicksburg direct to 1.
El Paso del Norte and San Diego.

Almost as much discussed as the routes for the railroad was the manner in which so large an undertaking was to be financed. One of the foremost objections to any kind of a railroad was that there was no precedent for an act of Congress chartering a railroad company and giving it a grant of public lands. All previous land grants in aid of railroad construction had been given to the States and by them turned over to the companies of their own creation. The States Rights people, who then controlled the policy of the general government, held that it was not constitutional to create such corporations through a congressional act. This of course led to a great deal of discussion and various schemes of financing the project were formed. The road might be constructed privately from a grant of the public lands as Whitney proposed, it might be built by the loan of government credit to a company incorporated for the

1. Albright, pp. 27-28
2. Smalley, p. 100-101
purpose, as suggested by P.D.F. DeGrand of Chicago, it might be done by setting apart a specific portion of the national revenue from the sale of public lands, leaving the work in the hands of the government as suggested by the Memphis convention, or it might be built by the individual states aided by grants of land from the government as was proposed in the South Atlantic and Pacific Bill.

Enthusiasts on the subject of the transcontinental railroad began to have some hope for the future when, in 1853 a bill was passed providing for the preliminary survey of four of the favored routes to determine their value. It would not have been possible at this time, due to sectional jealousy, to secure any action from Congress looking to the opening of any particular route, or even to its preliminary survey, but it was feasible to throw together all the suggested routes and obtain an appropriation of money to survey them all.

Secretary of War Davis in organizing the surveys was mostly guided by the plans already proposed. The Northern route, between the 47th and 49th degrees was placed in charge of Governor Stevens of Washington Territory, who was to operate from St. Paul towards the Great Bend of the Missouri River, and thence on the table-land to some pass in the Rocky Mountains. A second party under Captain McLellan

1. Albright, p. 28
2. Ibid. p. 29-38.
3. Smalley, p. 78.
was to proceed by water to Puget Sound and from there explore passes in the Cascade Range. The second route, between the 38th and 39th degrees corresponded to Senator Benton's central route, and was to be explored by a party under Captain Gunnison. The third route was Senator Gwin's 35th degree route, and was to be explored by Lieutenant Whipple. The fourth route was the 32nd degree or Gila route, and was to be surveyed in sections under Captain J.G. Pope and Lieutenant J.G. Parke with information concerning the country west of the Pina villages to the Colorado River to be taken from the Emory expedition of 1849 and 7.

Of these expeditions the only one that is pertinent to this discussion is that led by Stevens. Governor Stevens was well qualified for his position as head of the survey. After having graduated from West Point he commanded the building of fortifications on the New England Coast, and then saw service in the Mexican War under General Scott. He then entered the Coast Survey under Professor Bache, where he gained further training in surveying. He had a fine record as a leading man in Washington Territory, and was an excellent leader.

The reports of these surveys filled thirteen huge quarto volumes, which were printed by order of Congress, with a profusion of lithographs and woodcuts of scenery and

2. Ibid. p. 44. See also Appendix A, at end of paper.
Indian groups, and numerous maps. In submitting the reports to Congress in 1855, Mr. Davis summed up the information very clearly and forcibly, and concluded by a recommendation of the 32nd parallel route, the most southernmost of all, characterizing it as the shortest line from the Mississippi River to the Pacific Ocean and to San Francisco, the greatest commercial city on the coast; the easiest to build, and the only route, save that of the 38th parallel, free from danger of obstruction by snow.

Stevens had done his work so thoroughly that there was little necessity for further preliminary surveying to ascertain the Northern route to the Pacific when, ten years later, the project for a railroad assumed a business-like shape. The general result was to show that there was an easy route for a railroad from St. Paul to the Rocky Mountains, either by the Valley of the Missouri or that of the Yellowstone; that the main range of the Rockies offered no obstacles that could not be overcome by a tunnel and ordinary mountain grades; that the Bitter Root Range was more formidable, but could be turned by way of Lake Pend d'Oreille; that there were several practicable passes in the Cascade Range, and that the Valley of the Columbia offered a favorable though expensive route. In a word Stevens showed that the Northern route to the Pacific was not only a practicable but a very favorable one, following valleys or

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1. Smalley, p. 79.
traversing plains for nearly its whole length, and crossing the mountain backbone of the continent at comparatively low elevations. His report served afterwards as the solid foundation upon which the Northern Pacific Railroad as a business project rested. He became an ardent advocate of this route, and by his writings did much to make it known.

One of the results of the favorable reports of all the survey parties was to arouse the western settlers to an even louder clamour for a railroad. While engineers were discussing grades and materials, and politicians were endeavoring to reconcile sectional differences, the miners and ranchmen from Kansas to California were clamoring for improved means of transportation. A Pacific railroad was the hunger, the prayer, and the hope of all the settlers west of the Missouri. Both the Democratic and Republican platforms of 1860 declared that a transcontinental railroad was of the first importance and necessity, but not until the Southern states seceded was it possible to fix on the central route. This route was chosen because of the large population of California as compared to the Northern Territories.

The name of the Northern Pacific Railroad Company appears for the first time in Congressional Legislation in

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1. Coman, p. 357
2. Ibid., p. 80-84.
2. Ibid., p. 88.

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the Wilkinson amendment to a bill introduced in December, 1860 by Governor Stevens, who was also a delegate from Washington Territory. The bill originally provided for a grant of ten sections to the mile from the Red River of the North to Puget Sound, for a road to be built without other aid from the government. This was rejected in the House, and when sent to the Senate was amended by Senator Wilkinson. This amendment provided for a line from Lake Superior to the town of Breckenridge on the Red River of the North, and thence to Puget Sound with a branch down the valley of the Columbia to Portland, Oregon. The bill also included a subsidy of $25,000,000, and a land grant of six alternate sections to the mile on each side of the track in Minnesota, and ten alternate sections to the mile for the rest of the distance. The bill as thus amended created a company named the Northern Pacific Railroad Company, and empowered Charles D. Gilfillan, of Minnesota, Nathaniel P. Banks, of Wisconsin, and Isaac I. Stevens of Washington Territory to act as a Board of Commissioners to organize the company. This bill was passed by the Senate, but was tabled in the House.

The name had already received, not national, but territorial recognition, as in January 1857 the Legislature of Washington Territory passed an act incorporating the Northern Pacific Railroad Company, with a capital of 15,000,000 dollars. Among the incorporators were Isaac I. Stevens, Colonel 1. Smalley, p. 93-94

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The Northern Pacific Railroad received its charter on the same day that the Union Pacific received its subsidy in 1864. It was authorized to join the waters of Lake Superior and Puget Sound, and to receive for its services twenty sections of public land in the States through which it ran, and forty sections in the Territories.

However, the history of the Northern Pacific Railroad goes back beyond the name to Josiah Perham's People's Pacific Railroad, whose history is not always very clear, as many of the papers concerning the organization of the two companies were destroyed in the great Boston fire.

Josiah Perham was the inventor of the "excursion" and as such became well known and wealthy. In 1853 the dream of a Pacific railroad descended upon him and possessed him. He did not at first go to Congress for aid. He believed that the people of the whole country were willing to subscribe small sums to the stock of the company, which would total enough to build the road. At first he chose the Central route, but when the Central and Union Pacific Railroads were chartered he turned to the Northern route. He succeeded in obtaining a charter from the Massachusetts Legislature, but the Senate reconsidered its action and re-

1. Smalley, p. 95.
2. Paxson, p. 110.
fused the charter. Falling in Mass. Perham went to Maine, which passed a bill incorporating the People's Pacific Railroad, which was approved by the governor in March 1860. The wording of the location for the road, which ended "or by such route as the corporation shall deem expedient for the public interest," gave the company a fine wide field to choose from. The charter also included the plan of financing the road by a general sale of small shares to the public, and it was put into the bill which afterwards passed Congress, chartering the Northern Pacific, and it came very near destroying both projects after they were united.

Soon after he received his charter he combined with Stevens, Aldrich, Henry and Rice, and together they secured, with their title and influence and his influence and money, a charter from Congress in the name of the Northern Pacific Railroad, thus voiding his Maine charter, and Stevens' charter from Washington. After the close of the Civil War Perham made an attempt to organize his company and push it forward, but his plans were too impractical, and he was proposing to turn his franchise over to a foreign company when he was persuaded by some friends, J. Gregory Smith, R.D. Rice, and Benjamin Cheney, to turn it over to them.

2. Canfield, Thomas Hawley, Life of Thomas Hawley Canfield, Burlington, Vermont, Donohue and Henneberry, 1889. p. 20-21.

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They immediately applied to Congress for help, but
when it was not granted in 1866 and 1867 it was evident that
the temper of that body was hostile to further government
aid to railroads, and this attitude was encouraged by those
interested in the Central and Union Pacific Railroads to
prevent if possible the building of a northern or southern
line. The directors of the Northern Pacific Company were
much discouraged and were at times ready to give up the
whole idea. At this time Canfield stepped forward with an
idea for forming a syndicate of gentlemen from various
parts of the country to take over the railroad company, to
give it a more national quality, and if possible to secure
an extension of the charter. From this idea came the Original
Interests Agreement, which was signed by Mr. Ogden, president
of the Chicago and Northwestern R.R., J. Gregory Smith, the
president of the Central Vermont R.R., Richard D. Rice, the
president of the Maine Central R.R., Thomas H. Canfield,
Robert H. Berdell, president of the Erie R.R., Danforth N.
Barney, president of Wells Fargo and Co., Ashbel H. Barney,
president of the U.S. Express Co., Benjamin P. Cheney, the
president of the U.S. and Canada Express Co., William G.
Fargo, vice-president of the N.Y. Central RR, and president
of the American Express Co., George W. Cass, president of
the Pittsburg, Fort Wayne and Chicago R.R., J. Edgar
Thompson, president of the Pennsylvania R.R., and Edward
Reiley of Pennsylvania. These men agreed to work in the
interests of the road in Washington, and to each assume a certain share of the responsibility.

As the original charter prohibited the company from making any mortgage or issuing any bonds Mr. Canfield went to Washington in the winter of 1868-1869 and succeeded in having an amendment passed giving the company these rights. He also asked for and did not receive a subsidy.

Mr. Canfield had a pressing need for a subsidy. In 1867 the new Board of Directors had appointed Edwin F. Johnson Chief Engineer, and had ordered him to commence surveys and locate a line between Lake Superior and the Red River of the North, as well as to choose a suitable spot for the terminus on the western end of Lake Superior, and to locate a line from Portland towards Lake Pend d'Oreille. He was also to go over the country between the waters that connected with the Strait of Juan de Fuca and the Columbia River, and thence eastward towards the east side of the Rocky Mountains, to make measurements of the passes in the Cascade mountains. $25,000 were collected from the subscribers to pay the expenses of the survey and defray the incidental expenses of the company. The subscribers to the Original Interests Agreement continued to make advances for

Canfield, p. 23.

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for the cost of the surveys and the current expenses of the company, until they had furnished in the aggregate about a quarter of a million dollars.

Johnson presented his first report to the Board of Directors in November, 1867. The surveys in Minnesota and Washington Territory had not been completed, but he was able to produce a map showing a preliminary location of the whole line, from Lake Superior to Puget Sound.

In 1869 Mr. Canfield, Mr. Smith, Mr. Ogden, and Mr. Rice were appointed to a committee to make an arrangement with Jay Cooke and Company to negotiate the bonds of the Northern Pacific Railroad Company. Cooke would not give a definite answer until he had had a survey made himself. This rather annoyed the directors but there was nothing they could do except submit with a good grace. Accordingly Jay Cooke sent out two parties in the summer of 1869. One was in command of W. Milnor Roberts, and was directed to examine Puget Sound and the Columbia River, and then go eastward either over the Cascade mountains, or over Snoqualmie Pass, or up the Columbia to the great plain of the Columbia and the passes in the Rocky Mountains, and then on to the upper Missouri country and the waters of the Yellowstone. The other party was commanded by Governor Marshall of Minnesota, and was to explore the already well-known route from Lake

2. See Appendix B for more detailed information.
3. Canfield, p. 28.
Superior to the Red River of the North, and across the Dakota Plains to the Great Bend of the Missouri. Both parties were to report on the value of the country for settlement, and the Pacific division was to study the engineering problems presented and make estimates on the cost of construction on the mountain division of the line, which alone offered any serious obstacles to railroad building. The report made to Mr. Cooke on the completion of these surveys was extremely favorable, and did much to influence his decision to undertake the agency of bonds for the company.

As the railroad company itself was not empowered to buy lands other than its land grant, and as many of the best crossings and town sites occupied even numbered sections, the Lake Superior and Puget Sound Company was formed, with Canfield as president, to buy up such land from even numbered sections as was necessary. In 1870 this company selected and purchased the site of the Mississippi River crossing at Brainerd, from which place the engineers proceeded to locate the road in both directions. At a later date the same company located the sites of Fargo, Bismarck, and many of the important points on the western division.

Everything was now ready for construction to begin as the State Legislatures of Minnesota and Wisconsin had given

2. Canfield, pp. 30-32, and Smalley, p. 156
their consent to the construction of the railroad in 1865, and had also provided for the non-exemption of the railroad from taxation. The Indians were a definite menace to construction, especially on the Western side of the Missouri River, but the government troops, stationed in forts throughout the West, could be counted upon to give aid.

Except for the surveys, the years of 1868 and 1869 were spent mainly in pleading with Congress for aid that was not forthcoming. In 1869 the managers of the Northern Pacific finally, and with great reluctance, made up their minds that it was useless to besiege Congress with applications for government assistance, and began to consider the possibility of building the road as an ordinary business enterprise, with the proceeds of a loan placed upon the money market. It was after this decision that they applied for aid to Jay Cooke and Company. Congress viewed this plan with more favor, and willingly amended the charter so that bonds secured by a mortgage upon the railroad and telegraph lines might be issued, and changing the line of the road to include the continuation of the Portland branch to a terminus on Puget Sound.

Jay Cooke, whose Philadelphia house had done much to establish public credit during the Civil War, and who had created a market of small buyers for investment securities

1. Railroad Pamphlet, p. 15-16.
2. See Appendix C for information on these forts.
3. Smalley, pp. 159-161.
on the strength of United States bonds, popularized the Northern Pacific in 1869 and 1870. Within two years he is said to have raised thirty millions for the construction of the road, making its building a financial possibility.

The contract between Jay Cooke and the Northern Pacific Railroad was signed May 20, 1869, with the provision that legislation would be secured to allow a mortgage on the land grant as well as on the line. This contract was modified by a supplementary one in January, 1870. The terms were:
1. Bonds were to be issued to the amount of $100,000,000, bearing seven and three-tenths percent interest in gold, as did the government bonds sold by Jay Cooke.
2. The banking firm credited the railroad with eighty-eight cents on the dollar for the bonds sold at par.
3. The bank received $200 worth of stock in the company for every $1,000 worth of bonds sold, which would have amounted, for the completed road, to about $20,000,000, and half of the remainder of the complete issue of stock authorized by the charter.
4. The twelve original proprietary interests were increased to twenty-four, of which Jay Cooke held twelve. A considerable amount of stock was given by the bankers to subscribers to the bonds, but in all cases an irrevocable power of attorney was taken, so that the company having purchased a thirteenth interest, controlled the manage-

1. Paxson, p. 112.
ment of the railroad's affairs.
5. The banking house was to be the sole financial agent of
the road, and the sole depositary of its funds.
6. The conversion of $600,000 of old stock outstanding
into bonds at fifty cents on the dollar was provided for.
7. A land company was created to manage town sites.
8. Jay Cooke was bound to raise $5,000,000 within thirty
days from January 2, 1870, with which the company was
to commence immediately on the construction of the road.
9. The road was to be located immediately from the Montreal
River in Wisconsin west to the Red River, but construction
was to begin at the intersection with the Lake Superior
and Mississippi Railroad, a line already completed from
St. Paul to Duluth, the junction being near the Dalles
of Duluth. As Jay Cooke and Co. owned a controlling
interest in this railroad there was a practical unity of
interest with the Northern Pacific, and the latter had
the use of twenty miles of completed road, and the Lake
terminus at Duluth.

Jay Cooke and Co. raised the $5,000,000 required to be
ready within thirty days of January 2, 1870, by forming a
"pool" in Philadelphia, the members of which took the bonds
at par and were given the twelve proprietary interests in
the stock at $50,000 each. In May, 1870, the last re-

1. Smalley, p. 185.
2. Ibid., p. 186.
requirement was satisfied when Congress, not without a great
deal of debate, passed a joint resolution authorizing the
railroad to issue bonds secured by a mortgage on all the
property and rights of the company, which of course included
the land grant. It also made the Columbia River line the
main line to Puget Sound, and the Cascade line the branch,
and gave the company the right to select lands within a
limit of ten miles on each side of its grant to make up
any deficiency within the original grant from sale or
occupation by settlers.

It is easy to see from the brief resume of the agree­
mant, that Jay Cooke gave little and got much from the
Northern Pacific Railroad Company. The financial scheme
was faulty in other respects than the great allowance of
stock and commissions to the banking firm. It pushed the
company along the road to insolvency. It needed no great
amount of foresight to see that a railroad could not be
built through two thousand miles of wilderness and settle
and develop the vacant country along its line fast enough
to provide from its net earnings for $7.30 interest per
annum on $100 for every $83 expended on it. As soon as the
sale of bonds ceased, and the interest on the debt could
not be provided for by increasing the principal, Bankruptcy
was inevitable. The years of 1869 to 1871 were not, however,
times when prudence was a common commodity. Men's heads

1. Smalley, p. 166.
were turned by the apparent prosperity of the United States. It was thought that any draft on the future could be met, that the business of the country could go forward with all sails set for an indefinite period. 1.

When he had undertaken the sale of the Northern Pacific bonds, Jay Cooke's first idea was not to place the bonds by popular subscription in America, but to sell all of a great part of them in Europe. In 1869 his partner, William G. Morehead went to Europe with a prospectus to be presented to the Rothschilds. Morehead lacked faith in the project and made such an unsympathetic presentation that the Rothschilds would have nothing to do with it. Other European banking firms became interested in the proposition in the following spring, and several contracts were on the point of being signed when the French emperor, Napoleon III, started for the Rhine, and began his disastrous attack on Germany. The transactions came sharply to an end, and Mr. Cooke was compelled to fall back upon the American market. Then his apparatus of advertising and local agencies was brought into operation.

Jay Cooke put on an extensive advertising campaign. Circulars were written and distributed all over the country. Most of them described the mild climate and great fertility of the country through which the road was to pass, and

1. Smalley, p. 170
though some of the descriptions were a little highly colored, they were not nearly as exaggerated as his enemies claimed, when, after the crash in 1873, they called the Northern Pacific route "Jay Cooke's Banana Belt". Though this form of advertising brought some sales abroad, through the London branch, Jay Cooke, McCulloch and Co., most of them were in the United States. They became a favorite small investment, and there was hardly a state that was not represented by numerous subscribers.

It was hoped by the banker that the government, if it would not grant the line a direct money subsidy, would guarantee its bonds as it had done for the central line. If Congress had done this the public faith in the bonds would have been far greater, especially abroad, but Congress refused.

Another feature of Mr. Cooke's policy which was developed as a corollary of his advertising scheme was his effort to bring to the councils of the company the country's leading public men, especially those connected directly or indirectly with the government. His purpose was to gain the public confidence by a backing of big names, and also perhaps to win a favor or two from the government. This was rather dangerous, due to the prominence at the time of the

1. Oberholtzer, p. 224.
Smalley, p. 171.
See Appendix D. for a copy of one of these pamphlets.
2. Oberholtzer, p. 168.
Credit Mobilier Scandal.

The bonds were not ready to be offered to the public until January 1, 1871. They were to be sold at par. There were general agents who were assigned to large territorial districts, and whose maximum compensation was 6% in cash and 10% in stock. This class of agents were usually bankers and large business men. These general agents appointed sub-agents, whose commission was usually 2 1/2% in cash and 3 1/2% in stock. There were also travelling agents who reported to Jay Cooke directly, or to the general agents in the districts. The advertisement of the loan was begun systematically and expensively, but in the light of all the firm's valuable past experience in the sale of government bonds during the Civil War. In spite of all this the response, though good, was not good enough. Mr. Cooke was disappointed from the first. He attempted to speed up the sale of bonds by sending out travelling lecturers to talk on the Northern Pacific all over the country, and by arranging an excursion as far as the Red River Valley for twelve or thirteen journalists, to show them, and through them the people, the region through which the railroad was being built.

The sale of bonds in the New York office, as an in-

1. Oberholtzer, p. 228.
2. Ibid. p. 232.
3. Ibid. p. 233.
dication of the general state of the business, in May 1861 aggregated about $150,000. The total sales for all the agencies during the first two weeks in June amounted to $300,000, and the month yielded about $600,000. The movement, when it was at its height, did not go very far beyond that limit, although during a few favored seasons the returns totalled a million or a million and a quarter dollars monthly. It was costing an enormous amount to get the subscriptions, and with one hundred million dollars worth of bonds to sell it is no wonder Jay Cooke was discouraged at times.

Actual work on the railroad began in the summer of 1870, financed by the five millions derived from Jay Cooke's pool and the prospects of large receipts from the sale of bonds. In the spring detailed surveys were completed from Thompson's junction to the crossing of the Mississippi River, where a town was laid out and named Brainerd in honor of President Smith's father-in-law. In April Rice, Cass, and Ogden were sent out as a Board committee to the Pacific coast to locate the main line and the branch between the Columbia River and Puget Sound, and to select sites for future towns. Also in April the purchase of a controlling interest in the St. Paul and Pacific Railroad Co. was made. This railroad had a considerable land grant, and was organized to build from St. Paul to the British line at St.
Vincent, and also to Breckenridge on the Red River, and
to Brainerd. The importance of St. Paul as the first great
railroad center north-west of Chicago was fully realized
by the Northern Pacific managers, and by controlling the
stock of that road they hoped to be able to make its lines
virtually extensions and feeders of their own road.

In June 1870 a contract was made for the construction
of the Minnesota division of the road.

In January all preparations had been completed, and in
February of 1871 ground was broken with great éclat at
Thompson's Junction, where the line left the Lake Superior
and Mississippi Railroad. Construction had also begun on
the artificial harbor at the eastern terminus of Duluth.

For the Northwest this commencement was of the utmost
importance. The railway frontier of 1869 left Minnesota,
Dakota, and much of Wisconsin beyond its reach. The potential grain fields of the Red River region were virgin
forest, and on the main line of the new road between the
head of Lake Superior and the mining camps in Montana no
settlements of civilized people existed, except for two or
three military posts, Indian agencies, and isolated trading
stations. Between the Red River and the Missouri the land
was still claimed by the Sisseton and Wahpeton tribes of
the Sioux nation, and beyond the Missouri to the Rocky Mts.
the land still belonged indisputably to the savages. Into

1. Smalley, p. 185.
2. Oberholtzer, p. 244.
this country the railroad was to penetrate, providing for the settlers in the Northwest a means of communication with the East, and bringing in new settlers to work the lands thus made profitable.

The work of building the first section of the track was entrusted to a construction company which, it was said, was made up of officers and employees of the railroad. This state of affairs, and the jealousy between Minneapolis and St. Paul, led to charges which were duly carried to Jay Cooke. The Credit Mobilier scandal was still so well-remembered that even a rumor of the same state of affairs in the Northern Pacific dealings would be enough to ruin its chances of success. The impression of dishonesty was fed by a deep-rooted distrust of President Smith and the Vermont Central "clique". That there was some actual dishonesty in the award of contracts and in the execution of them is certain, but the jobbery was magnified, and it was promptly and summarily brought to an end by Jay Cooke. To allay all suspicion, and cure the cause, W. Milnor Roberts was installed as Chief Engineer of the road, replacing Edwin P. Johnson, who was growing feeble and incompetent. Roberts had an enviable reputation for honesty and efficiency.

Roberts' first step was to order all surveying parties

1. Paxson, p. 112; and Smalley, p. 178.
to cease work and report to him immediately for further instruction. He made a complete reform in his department, and made each man responsible to him personally. Then he went to the West coast to attend to the building of the twenty-five miles of road from Portland in the direction of Puget Sound that was necessary to keep the charter. He had everything in control soon, and in February returned to Minnesota to take care of the company's interests there.

When Roberts returned to the East he found the chief men of the company split over the question of the Eastern terminus. The new city of Duluth had already been chosen, but the Vermont Central "clique" was interested in the rival town of Superior. Roberts pointed out the advantages of Duluth, and showed why it had been chosen, and in the summer of 1871 a meeting was held there at which the Board definitely announced the choice of Duluth as the eastern terminal.

Under this new leader the construction moved on rapidly. By November 20, 1871, the rail-head had reached the Crow Wing River, where it awaited the construction of a bridge.

Of the quality of workmanship, Nettleton, in a letter to Cooke on August 12, 1871 said, "Where the road purports to be finished it is superb - a credit to all concerned."

Also in 1871 Roberts, under escort of a considerable body

1. Oberholtzer, p. 247-248
2. Ibid. p. 251-255
3. Ibid. quoting Nettleton, p. 256.
of United States troops, examined the upper part of the Missouri and Yellowstone Valleys. He personally visited eight passes in Montana with a view to finding the best crossing for the rails, and made another trip to the west coast as escort to a group of European bankers of whom Jay Cooke hoped to receive aid in selling the bonds. 1.

In October, 1870, contracts were let for the section of road between the Red and Missouri Rivers, and on December 30, 1871 the railhead reached Moorhead, as the station on the east bank of the Red River had been named. The first section on the Pacific coast was also completed before the end of the year, and work was proceeding with the next section of forty miles. 2.

Jay Cooke was not as elated at this rapid progress as might be expected. The great fire in Chicago had made the prospect of all western enterprises unpleasant to the people in the east, and the bonds were not selling well. Another result of the fire was a panic in the stock-market, the worst since 1869. Many banking houses closed their doors, but luckily few, if any, Northern Pacific bonds were thrown on the market. Cooke was very much disturbed by the outlook at this time, and it was by no means encouraging to have the railroad push forward faster than the sale of bonds would warrant. 3.

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1. Oberholtzer, p. 258.
2. Ibid. p. 253-252.
3. Ibid. 259-261.
Another reason for the lack of desire for the bonds was the delay in selling lands. The company could not sell the lands to settlers until the track was finished and inspected by the government. Smith delayed acceptance from the contractors, claiming that too hasty action might involve future difficulty with poor construction. This delay discouraged the buying of bonds, which could be used in payment for land, to a great degree, while the rapid settlement of Minnesota would have encouraged it immensely.

In the summer of 1872 Smith was still not ready to have the government inspect the road. Finally, in October 1872, Mr. Kauffman, A.C. Sands, and Thomas Underwood went to Duluth and inspected the track, their report being thoroughly favorable. They examined the entire completed Minnesota Division of 223 1/2 miles from the Junction to Moorhead on the Red River. The bridges and culverts were pronounced "ample"; the ties of oak, tamarack, and Norway pine were laid 2640 to the mile; the rails were of American manufacture, weighing 56 pounds to the yard. The inspectors reported 68 locomotives in service on the line, with 18 passenger cars, and some 1,500 freight cars. One of the commissioners, Mr. Underwood, was so favorably impressed that he also wrote an unofficial endorsement to be used as advertising material.

1. Oberholtzer, p. 305.
2. Ibid. p. 306.
Smith was proving more and more incompetent, and during the spring of 1872 Jay Cooke decided that he must be removed soon. The proposed change of management included the removal of both Smith and Rice, and the election of George W. Cass as President, and Frederick Billings as Vice-President. Jay Cooke gave to General Nettleton a power of attorney to demand, and receive and accept Smith's resignation. Even after this had been accomplished Smith tried to resist Cooke in a Board of Directors' meeting, at which he was finally forced to give in when he saw that he was the only person on his side. His resignation was made effective in September, 1872, though it had been handed in in June. This lapse of time was necessary to allow Mr. Cass to straighten out his affairs before he began on the new enterprise. Under Mr. Cass the management became far more economical. His reputation for honesty, and efficiency also added prestige to the company and trust to the hearts of the stock and bond-holders.

The next person on the list was Canfield, whose management of the Lake Superior and Puget Sound Land Co. was not in harmony with the best interests of the railroad. He antagonized many prospective settlers, and wasted too much money. He was superseded on the Board of Directors, and the Land Co. was reorganized. He remained president,

1. Oberholtzer, p. 326.
2. Ibid, p. 329.
but his greatest enemy, Henry Blood, was appointed vice-

president on the theory that the two disliked each other
so much that they would be sure to report any lapses.

The Land Company was not merged with the Railroad Company
only because of the hot opposition to such a scheme offered
by the Pittsburg stockholders.

In the summer of 1872, at the August meeting of the
Board of Directors, Jay Cooke reported that the company
was in financial straits, and must be helped by a loan
raised on the individual credit of the members of the
Board. The shadow of the coming calamity had already fallen
on the enterprise, and the completion of the road to the
Missouri River, and of the short line from the Columbia
River to Puget Sound before the crash came in 1873, was at
the cost of a considerable floating debt.

During the year of 1872 no general Indian war took
place in the Division between the Red and Missouri Rivers,
but a number of murders and depredations were committed
by small war parties in various places. The actual surveys
and locations of the Northern Pacific in that year reached the
mouth of the Powder River, two hundred miles beyond the
Missouri. For the protection of the surveyors and the con-
struction parties upon all the lines, a considerable
force of troops was necessary as escorts, and minor engage-

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1. Oberholtzer, p. 329.
2. Smalley, p. 188.

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ments between Indians and these small detachments were
of repeated occurrence. The troops were also called
upon to escort the most important survey made by the
company in this year. The escort was under the command
of Major E.M. Baker, whose official report, though brief,
is the best and most authoritative account of the survey
available. I will quote in full.

Fort Ellis, M.T. (Montana Territory)
Oct. 18, 1872.

Assistant Adjutant General
Department of Dakota.
St. Paul, Minnesota.

Through Headquarters District of Montana

Sir:

I have the honor to make the following report of the
operations of the escort to the Surveyors of the N.P.R.R.
Company under my command.

The escort consisted of four companies of the 2nd
Cavalry from Fort Ellis and four companies of the 4th
Infantry from Fort Shaw - Total number of commissioned
officers Twenty (20) - Total number of enlisted men -
three hundred and forty-nine (349). Major J.W. Barlow,
Corps of Engineers and 1st Lieut. J.W. Jacobs Rgm 7th
Infantry accompanied the expedition and are included in
the total commissioned. There were about forty-five (45)
teamsters and employees and citizens all armed. The
Infantry portion of the command left the post on the 27th
of July, the remaining portion following on the 28th.
The command was consolidated on the Yellowstone at the
mouth of the Shields river about 35 miles from the Post.
From this point the command and surveyors moved down the
Yellowstone to a point about seven (7) miles below the
terminal of last year's survey (Robert's) keeping on the
north side of the river the entire distance, the depth
of the stream rendering it impassable. This part of the
journey was made without incident and we arrived at the
above mentioned point on the 12th of August - We remained
in camp on the 13th. On the morning of the 13th the

1. Record of Engagements with Hostile Indians within the
Military Division of the Missouri 1868-1882, Lieut. Gen. Philip
Henry Sheridan commanding. Compiled from official records.
Headquarters of the Division, Chicago, August, 1882. p. 37/
surveyors returned to the point where the Survey of last year terminated and brought their operations to the vicinity of the camp. About 3 A.M. of the 14th the command was attacked by a band of Sioux and Cheyennes variously estimated from 400 to 1000. The companies were promptly formed by their Company Commanders and the Indians were easily repulsed.

Our loss in the engagement was as follows: one sergeant of C Company 7th Infantry killed, and two cavalry-men and one infantryman wounded. One citizen was also wounded and afterwards died - 15 beef cattle and 4 mules were driven off by the Indians and two cavalry horses died from the effects of wounds. The bodies of two Indians were found on the field and fourteen (14) dead ponies. After the Indians had retired the camp was moved and the Survey continued as usual. On the evening of the 19th of August Mr. Hayden Engineer in charge of the party, sent me a note saying that it was, in his opinion, impossible to proceed with the Survey, as it would be necessary to divide the command in order to get transportation through the bad lands, and he did not consider the divided forces sufficient to conduct the transportation and escort his party safely, and therefore declined to continue the Survey on the Yellowstone, and requested me to conduct his party over to the Musselshell River, in order that they might prosecute a Survey up that stream, or if my orders did not permit of such disposition, to conduct the party back to Fort Ellis. In compliance with this request I broke camp on the morning of the 20th of August and marched over to the Musselshell. From this point the Survey was continued up the river to a little deep creek off the Fort Ellis and Camp Baxter road. At this point I broke up the command, sending the Infantry to Fort Shaw, via Camp Baker, and returning to Fort Ellis myself with three companies of Cavalry, leaving Company L 20th Cavalry with the Surveyors until their services were no longer required or until relieved by proper authority. A map of the route will be forwarded as soon as completed.

I am, Sir,
Very Respectfully
Your obedient servant
(signed) E.H. Baker
Major 20th Cavalry

In September, 1872 another crash in the stock-market

1. A more complete account in Hostile Indians p. 36.
threatened, and the entire administrative strength, supported by Jay Cooke, who hoped for Grant's re-election, was exerted to stem the current which might ruin the chances of both. The market was strengthened by a large buying of bonds on the part of the government, and the crash was averted for a time. The financial situation of the railroad did not improve, however. Jay Cooke and Company was practically carrying the road on its own responsibility as the bonds were not bringing in enough to begin to cover the expenses of construction. Cooke's partners, especially Fahnestock and Morehead, grew more and more despondent, and the London house was equally affected.

The re-election of Grant, for which Jay Cooke had strained every nerve, was expected to invigorate the sale of bonds, and raise the monthly total at least to the old high, about one million dollars, so that the banker would have a chance to recoup for the advances of the summer, but in the winter of 1872 it became impossible to hold the seventies at par, due to the distrust of the general public.

The laborers at work on the Northern Pacific line itself were not being paid punctually, and from Duluth to the western end of the road their complaints were loud. Vouchers were passed from hand to hand as script awaiting the payment

2. Ibid. p. 387.
3. Ibid. p. 389-394.
of the company. When work ceased for the winter there were predictions that it would not be resumed and rumors and statements to this effect even further shattered the public confidence in the project.

The railhead approached the Missouri River in the spring of 1873, and with the completion of the road to Bismarck, the crossing, the Northern Pacific Company began to use steamers as part of their equipment. From Bismarck the steamers carried freight and passengers to Fort Benton, and down the river to St. Louis and the Gulf. In the western section the progress was not so satisfactory as it had been in the east, but the company had fulfilled all the requirements of the charter. Rails had been laid from Kalama, the terminus on the Columbia River, nearly to Olympia, on Puget Sound. The coast terminus had been chosen, laid out, and named Tacoma, and arrangements were completed for the building of the forty miles of road necessary to comply with the conditions of the charter.

By 1873 Jay Cooke was well on the way to completing his plans to buy up all the small branch lines that would be useful to the Northern Pacific as branches and feeders. In 1871 he had purchased the controlling interest in the St. Paul and Pacific, which ran from St. Paul to St.

1. Oberholtzer, p. 394.
2. Ibid., p. 334-335.
3. Ibid., p. 340.
Cloud, and which was to be extended to a junction with the Northern Pacific at Brainerd. The St. Vincent extension was to cross the Northern Pacific at Glyndon, and go down the Red River Valley to Pembina, where contact could be established with the British settlements in Winnipeg and the Saskatchewan valley. In 1872 the Lake Superior and Mississippi Railroad, which has been mentioned before, was leased to the Northern Pacific, though it had been virtually an extension of that road from the time of Jay Cook's interest. In 1872 also, the Oregon Steam Navigation Company sold out to the Northern Pacific, and the steamers were used to travel inland from Kalama. In 1873 Jay Cooke bought a controlling interest in the Iowa Central Railway, running from Duluth to St. Louis. This policy of Jay Cooke's was a very helpful one to the new line, and would perhaps have been even more so if, in the crash of 1873, so many of them had not gone into receivership, severing connections with the Northern Pacific.

Jay Cooke, perceiving that the public would not buy the seven-thirty bonds, determined on a new plan of action. He determined to form a syndicate to absorb a good share of those remaining, and also to retire the seven-thirty issue in favor of a new issue of six percent bonds. This was excellent psychology, as it seemed to indicate that the road was so sound financially it did not need to pay as

high a rate as before for money loaned them. The point of retirement of the seven-thirty bonds was placed in advance of the number already sold, in the hope that there would be a rush for the last ones that would bring in enough money to pay the most pressing debts of the road. The new bonds were offered to the subscribers on the basis of $85 net, with a 50% stock bonus. The $8,000,000 worth of bonds in the new issue would carry with it as a bonus $4,500,000 worth of fully paid up stock. The latter, and as much of the cash discount on the bonds, $1,350,000, as could be realized in the price of sale above $85, after deducting agent expenses, would be a clear profit for the syndicate. The members were to sell bonds at par as before, and if they were agents who had already worked for Mr. Cooke, as many of them were, their usual compensation of 5% in cash and 10% in stock would be increased to 15% in cash and 50% in stock. They, on their parts, obligated themselves to pay their subscribed portions monthly, whether they sold more of less than this amount during the month. Jay Cooke and Company was to take one-third of the whole amount, another third would be distributed to the Northern Pacific agents and banks, and the remaining third was to be offered to the Jewish bankers in New York. This plan worked no better than the previous one. Sales reduced steadily and the agents were more unreliable than ever.

In June Mr. Cooke told Senator Cattell that over one-half
the amount needed to close the loan had been subscribed, and later in the same month he said that $6,000,000 had been taken. This sounds excellent, but it must be remembered that half of this sum was the part of the issue taken by Jay Cooke and Company, and therefore only the other half represented sales. The government still refused to endorse Northern Pacific bonds, due to the Credit Mobilier scandal, that was being investigated in Congress in the same year.

To the builders of the railroad the Indians constituted a serious menace after the crossing of the Missouri. General Sheridan and general Terry, for this reason, were prevailed upon to order out troops to protect the engineers and surveyors. The force of troops that were assigned to the service of the Northern Pacific in the summer of 1873 was headed by General Stanley, with Custer in command of the cavalry. There were nineteen companies of infantry, and twelve of cavalry, with two hundred wagons, oxen, mules, horses, stores, and artillery. It was regarded as the strongest party which had crossed the plains since Albert Sidney Johnston went to subdue the Mormons in 1859. At the head of the railroad engineers was General Thomas L. Rosser, a West Point graduate and an ex-Confederate cavalry commander, who had supported J.E.B.

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Hostile Indians, p. 40.
including every wheeled vehicle, amounted to 275 wagons and ambulances. The civilian employees numbered 353 men. The number of mules and horses to be foraged was 2,321.

The expedition was ready and started on the 20th of June; the effective force that morning being 79 officers and 1,451 men.

Four days previous to the main column leaving Fort Rice, a detachment of four companies of the Eighth Infantry; a squad of one officer and 25 men Seventh Cavalry, and one company Sixth Infantry, from Fort Abraham Lincoln, had been directed to escort the engineering party from the crossing of the Railroad on the Missouri river to such point as the main force might overtake them.

One of the difficulties at the outset was to learn the probable rate of daily travel the engineers would accomplish to the Yellowstone. This was finally settled by the conclusion that 60 days' rations and forage would be required; the latter being reduced to five pounds. The carrying of this amount of supplies, in addition to necessary camp-equipage, loaded our wagons unreasonably heavy.... With these heavy loads the necessity of returning a train to the Missouri river for supplies seemed apparent, as we could start with only 42 days' forage, at five pounds. The expedition might still have gotten along the march with reasonable speed, but for the setting in and continuing of rains unprecedented in my experience in this climate.

For the first seventeen days of our march it rained fourteen days, in some instances three or four heavy rainfalls in twenty-four hours. The consequence of this rain was that the usually hard prairie became a swamp, and the fifth day's march the entire day was spent making four miles on a level prairie, usually as good as a macadamized road.

The route taken was due west to Fort Rice to the great bend of the Heart River, and owing to the heavy rains we were six days in making 45 miles, and were detained by high water at Heart River Crossing one day. As soon as across Heart River, I sent my chief guide, Basil Clement, with one company of cavalry, to hunt up the engineering party; the same day a squad of cavalry heretofore mentioned as forming part of the escort of the engineers arrived in camp, bringing dispatches from Mr. Rosser, chief engineer, and Maj. E.F. Townsend, Ninth Infantry, in command of the escort, informing me of having been overtaken by a most furious hailstorm two days previous (the 24th)
in which men had barely escaped with their lives, and the animals stampeding on the march had broken up their wagons to such an extent as to completely cripple both engineers and escort.

The command was put in motion the morning of the 27th, the cavalry being sent light with the mechanics outfit to join the engineers and repair damages. The cavalry reached the engineers by marching due north from the bend of the Heart River and crossing to the left bank of the Muddy the same evening. The heavy train, escorted by the infantry, labored painfully two days to reach the Muddy, and next day, the 29th of June, the usually sluggish little slough was converted by the rains into a river 60 feet wide and probably 20 feet deep.

Through the ingenuity of my chief commissary, Second Lieut. P.H. Ray, Eighth Infantry, pontoons were immediately made by filling wagon beds with empty water-kegs, confined by lashing, and inverting the beds, and a good bridge being formed, the command was passed over by the evening of the 1st of July. The time had now come when either one of the two movements I had been instructed verbally by the commander of the department to make became possible from the lightening of our loads. One of these movements was to push a light force at once to the Yellowstone, the other to send back to Fort Rice for additional supplies. Both these movements could not possibly be carried out at once, the conditions of the transportation being so bad that success in both attempts could not be expected if attempted simultaneously. From the outset the feasibility of establishing a depot on the Yellowstone to be supplied by steam-boat, had been doubtful; therefore, after due consideration, I sent forty-seven wagons back to bring up additional forage and rations.

Although I had met the chief engineer of the survey while the command was crossing the Muddy, he had said nothing about a change from the original plan of his survey; and only on the 5th day of July, on which date I was first able to bring the infantry and train up to the engineers and cavalry escort, Mr. Rosser informed me that he had changed his plans, and would connect his present work with the survey of 1871, and push on for the Yellowstone. On the 7th of July the command set out to march to the Yellowstone. The route followed was that of Major Whistler's march in the fall of 1871. We found the Little Missouri quite full; it is a very difficult stream on account of its deep

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1. See Meigs letters, p.55, for June 28, 1873.
quicksands, and at first trial it appeared we would either have to bridge it eighty feet wide or wait for the waters to subside. This difficulty was thoroughly overcome by first putting in our large herd, 700 head of beef cattle, and afterwards all the cavalry, driving and marching back and forth until in one hour the sand became as firm as a Russian pavement. After getting out of the Bad Lands of the Little Missouri, I directed the guide to leave Whistlers' trail to the right and strike the divide between Glendive's Creek and Cedar Creek. This route proved a success and we arrived at the Yellowstone the 13th of July. Lieut. Col. Custer, with two squadrons of cavalry, reached the mouth of Glendive's Creek by a very difficult bridle-road, finding the depot established at that point, and the steamboat Key West awaiting our arrival. Colonel Custer informed me by note the next morning of the impossibility of reaching the mouth of Glendive's Creek and the unsuitableness of the site for a temporary post. I directed the transfer of stores, and erected a strong bastioned stockade upon the south bank of the Yellowstone, eight miles by land above Glendive's Creek.

Moving the stores and ferrying the troops and trains across the river occupied until the 26th of July. A garrison of one company of the Seventeenth Infantry and two companies of the Seventh Cavalry was left at the stockade, and on the 26th the march up the left bank of the Yellowstone was commenced. As the engineers had a day's work to do on the opposite bank of the river from the command, the Key West was detained one day, and ran up to the mouth of Cabin Creek with Major Crofton's battalion of the Seventeenth Infantry and Sixth Infantry as a guard for the engineers. On the 28th we started to make the detour necessary to pass the Bad Lands, which run bluff upon the Yellowstone opposite the mouth of Powder River. This route carried us directly north, directly away from the Yellowstone about twenty miles.

After four days' hard marching and a great deal of labor in road-making, we found ourselves back upon the river. Our chief difficulty was after having gotten the train upon the high plateau north of the Powder River, to find any place to get down the steep "bad-land" bluffs, which break down abruptly upon the valley of the Yellowstone. Fortunately we found a creek, which I named Custer's Creek by the bed of which descent was possible. The distance through the Bad Lands was sixty miles. There is no permanent water for forty miles and grass is very sparse. We found the steamboat...
Josephine eight miles above the mouth of the Powder River, Capt. William Ludlow, of the engineers, having brought the boat up with a supply of forage and some necessary clothing. The same night we met the Josephine we had the first evidence of the presence of Indians, the camp-guard firing on Indians during the night, and the trail of about ten being plainly seen going up the valley the next day.

In marching up the Yellowstone, an escort of one company of the infantry and one company of the cavalry took care of the surveying party, which aimed to follow the valley. The trail had to make many detours, leaving the valley and crossing the plateaus when the river ran close to the bluffs. This, getting upon the high grounds, occurred thirteen times from Powder River to Pompey’s Pillar and generally the ascent and descent were very difficult. The lateral arroyos or gullies of the Yellowstone, being cut down into a clay soil, require a great deal of digging to make them passable for a large train.

On the 4th of August one of the detours from the river was made. We were then opposite the mouth of the Tongue River. The day was excessively hot and the march very long and tedious. I had sent Lieut. Col. Custer ahead to look up the road, a service for which he always volunteered. About 2 p.m. I came up to one of my scouts, who told me there was firing ahead, but thought it was at buffaloes, as he had observed a trail of these animals going in that direction. Shortly two scouts and a cavalry straggler ran in and said they had been pursued by Indians. I sent all the cavalry to support Custer, but he had an hour before driven his opposers miles away. Colonel Custer had gained eight of ten miles ahead of the train, and had unsaddled to graze his animals, when his pickets signalled six Indians approaching his position; these were only in decoy, and when Colonel Custer, who followed their movements with a few officers, declined to follow them into the adjoining thicket of cottonwood 250 or 300 warriors rode out, and immediately attacked Custer’s troops. The squadron was about eighty strong; and as the Indians were much more numerous, Colonel Custer fought decisively and on foot, until finding the Indians had nothing new to develop, he mounted his squadron and charged, driving and dispersing the Indians in all directions. Six Indians were seen to go off towards the main column during the skirmish; these six waylaid and killed Veterinary Surgeon Honsinger, Mr. Baliran, a trader, and a soldier of Company F, Seventh Cavalry, named Ball. The first two were unarmed non-combatants; the
soldier was surprised at a spring, and probably killed before he could make any defence. The bodies of the civilians were found unmutilated; the soldiers' remains were only found as we returned in September. On the 5th, 6th, and 7th, the Indians on the bluffs continued to watch the column, but it was not until the 8th, and when about opposite the mouth of the Rose Bud River, that we discovered that a very large Indian village was fleeing before us. Pursuit was resolved upon, and at 9 p.m. that night Lieut. Col. Custer left with all the cavalry and Indian scouts to try to overtake the village. The troops carried seven days' short rations, and 100 rounds of ammunition per man. The trail was followed that night, a part of the 9th, and the succeeding night, when, upon the morning of the 10th, it was discovered that the Indians had crossed the Yellowstone in skin-boats and rafts three miles below the mouth of the Big Horn River. Colonel Custer tried industriously all day the 10th to cross. The river was very deep and swift, and our American horses would not take it, and although he got a picket-rope across, the least strain would part it. The Indians settled the matter by attacking him the next morning at dawn, firing across the river, at this point about 700 feet wide. After firing across the river had become general, Custer found himself assailed from the bluffs 600 yards in his rear; pushing up a skirmish line on foot in the latter direction, Colonel Custer formed each squadron into a separate column, and charged the Indians driving them eight or ten miles from the field. The main column came in sight of Colonel Custer's position at 7 a.m. Indians in very large groups had collected out of rifle-range on the high bluffs across the Yellowstone. I directed Lieutenant Webster, twenty-second Infantry, in command of the section of artillery, to shell these groups; he threw several shells, very well aimed, producing a wonderful scampering out of sight. An hour afterwards, a few more shells at a group of warriors caused the fastest kind of running. One officer was severely wounded, one private killed and two wounded, and summing up the two engagements, we lost four killed and four wounded, and five horses killed. The Indians engaged in this affair against the expedition lost in killed and wounded, but I cannot pretend to say in what numbers, as I was not present on either occasion during the fighting. I would

2. Idem.
respectfully refer to the report of Lieut. Col. G.A. Custer, heretofore forwarded to department headquarters. From citizens clothing, from coffee, sugar, and bacon dropped, from the shells of patent ammunition found on the field, from two new Winchester rifles found on the first field, it is certainly true that these Indians were recipients of the bounty of the United States government; and as they were mostly Unopapa Sioux, they had not long time since come from that center of iniquity in Indian Affairs, Fort Dick. Taking one day to provide for the wounded, we resumed the march, reaching Pompey's Pillar on the 15th of August. We remained one day at this, the limit of our march upon the Yellowstone. Upon the morning of the 16th a ludicrous incident occurred, which might have had a tragic termination. The river was full of bathers, when six Indians rode out from behind cover on the opposite bank, and fired a volley at them. Of course there was a scampering of naked men, none of whom, fortunately, were hit. On the 17th, 18th, and 19th we crossed the divide to the Muscleshell River. The march was 60 miles in a direction west of northwest. The second and third days marches were made upon the trail made last year by Colonel Baker. There are no springs on the divide, the grass is very poor, and but for a copious rain, which fell the evening of the 14th, we must have fared badly. The night of the 16th I sent Reynolds and Norris, two daring scouts, to Fort Benton with dispatches. Mr. Frost, a young gentleman from St. Louis, and two young Englishmen, Messrs. Clifford and Molesworth, who had accompanied the expedition for adventure went through with the scouts. Fortunately, all arrived safely at the settlements. Setting out the morning of the 20th, we continued down the Muscleshell 65 miles, mostly due west. Progress was slow, principally from the great amount of fallen timber we had to move to make a wagon-road. The command reached the Big Bend of Muscleshell, where this river turns a little west of north to its junction with the Missouri. The official map of the Engineer Department is of little use to the traveller in the Muscleshell country; the river being placed wrong on the map, trails and small streams out of place. Resting one day at the great bend of the Muscleshell, I sent the guides forward to look for water in the direction of starting a stockade on the Yellowstone. The reports being favorable, as there

were pools remaining from the heavy rain of the
day previous; on the morning of the 27th we left the
Musclesheil, moving due east, which course was con­
tinued next day. Since leaving Pompey's Pillar we
had passed over a country almost destitute of grass.
The Muscleshell valley is fertile, and, uninhabited
by game, would furnish good grazing; but our march
had been preceded by thousands of buffaloes, and the
grass was completely exhausted. I decided to send
Lieut. Col. Custer, with six companies of cavalry,
in charge of the surveying party, by the direct
route to the stockade, while I took the train and
main force by way of the Yellowstone Valley to try
and recruit our exhausted animals, Colonel Custer
made the march in five days of 22, 22, 25, 35, and 10
miles. He will furnish a map and report. From the
point of separation with Custer's command, which is
on the middle branch of the Great Porcupine, three
hard days' marching brought the train to the
Yellowstone, at the mouth of the Little Porcupine.
This route was from the Musclesheil to the Yellow­
stone was the most trying to our stock of any part
of the route for the summer. This soil is light and
sandy, producing nothing but cactus and stunted weeds;
no springs of any capacity exist; the Porcupine
Creeks are only great water-drains after rain-falls,
and, but for the timely rain preceding our march, it
would have been ruinous to try to pass the route
with our jaded stock. The march down the Yellowstone
was made by easy journeys to benefit the stock; and
in passing the Bad Lands we improved and straightened
the trail of our outward march, arriving at the
Yellowstone opposite the stockade on the 9th of
September. The steamer Josephine arrived the same
day, and the four preceding days were employed in
ferrying over the command, and preparing for the
homeward march. As the engineers had additional work
in the Bad Lands of the Little Missouri, Lieut. Col.
Custer, with six companies of the Seventh Cavalry
was crossed on the 10th, and left the morning of the
11th, escorting the engineers. The surplus stores,
amounting to eighty tons, mostly flour, hard bread, and
bacon, were loaded on the Josephine, which also took
the battalions of the Eighth and Ninth Infantry and
Captain Powell's company of the Sixth Infantry. I
had recommended this in my dispatch of the 19th of
August, and when I was on the Yellowstone no one doubted
the propriety of sending the troops by steam-boat.
Captain Marsh, the master of the steam-boat, assured
me that he had one foot more water than when he ran
the Key West up the Yellowstone last May. The officers
were all pleased with the arrangement, but as the
Josephine is, at date of this writing, unheard of, her fate is a matter of very great anxiety to me.

The command left the Yellowstone on the morning of the 14th of September, and marched to this place in nine days, averaging twenty-five miles daily. The number of days the expedition was out is 95; the number of camps made is 77, in six instances we only shifted camp for grass, making the total number of camps at the end of a march 71. The total estimated distance is 935 miles; the average daily march thirteen and one-seventh miles.

... In conclusion I desire to express my satisfaction with the conduct and efficiency of the troops I have had the honor to command upon this expedition.

(signed) D.S. Stanley

The first period of construction ended abruptly in 1873 when panic on the stock market brought most transportation projects to an inglorious end, and forbade revival for at least five years.

Activity in the building of railroads, especially in the preceding five years, had brought about a boom in other industries as well. Energy outran the available means. Those who were building the roads had to borrow the necessary money, usually through the sale of stock and bonds on their own responsibility. This plan answered for a while, but it soon became obvious that is such a large undertaking the backing of a banking firm was needed, with the use of their facilities for the sale of stocks and bonds. Thus it was that Jay Cooke and Company undertook to finance

2. Paxson, p. 111.
the Northern Pacific Railroad as other bankers were financing other roads in the hope of great profits. But time and money were lacking to make of the railroad a paying enterprise. Jay Cooke and Company, and other bankers as well, overreached the possibilities of their capital, they had been too sure of success in operations that were in advance of their day. Europeans had also invested heavily in American Railway bonds until in May 1873 a sharp financial panic on the Bourse in Vienna warned European financiers to set their business in order. There was no warning of the Panic of 1873 except a gradual hardening of rates, and a diminution of the money supply. Otherwise Prosperity was written all over everything. Prices of commodities were high, the demand was good and everybody seemed to be making money. A cereal shortage in Europe promised a profitable export trade.

On Sept. 8, 1873 the New York Warehouse and Security Co., and on the 13th Kenyon Cox and Co. suspended. It was rumored more and more persistantly that the house of George Opdyke and Co. was also on the verge of collapse. All these firms were interested in crippled railroads. On Wednesday, Sept. 17, 1873, a very unsatisfactory day on the New York Stock Exchange, during which the "bears" had great success, so alarmed the President that he

1. Rhodes, Vil. VII p. 102-111.
conferred with Jay Cooke all evening, and with such result that Cooke dropped a vacation and went the next day to his Philadelphia branch to see what could be done to save the day. His company had overburdened itself with collateral which at this time was practically useless—the bonds and stocks of the Northern Pacific, the Lake Superior and Missouri Railroad, The Oregon Steam Navigation Company, and allied railroads and land companies. In New York Fahnestock and Moorehead, Cooke’s two partners, were in conference with a number of prominent bank presidents, but it came as a perfect surprise to Jay Cooke when he got word that his partners had closed the doors of the New York branch. As soon as the dispatch reached him he closed the Philadelphia house, and the news broke on a stock-market already shaken and a general public whose confidence was slipping rapidly.

On the same day, Sept. 18, and about four hours after Cooke’s New York house was closed, E.W. Clark and Co. also suspended, and other smaller companies in both New York and Philadelphia followed suit. Sept. 19 began with the suspension of the great house of Fisk and Hatch, who had been connected with Cooke during the Civil War, and during that day over twenty other firms suspended in New York, and nearly a dozen in Philadelphia. On Sept. 20 two national banks and two trust companies went under, the

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Lake Shore Railroad failed to pay a call loan of $1,750,000, and the Union Trust Company, allied with the Vanderbilt interests, closed its doors. A little after noon of that day the officials of the Stock Exchange held a conference and decided to close it, a thing before unheard of.

Mercantile houses were gradually involved in the general trouble, and their failure to meet obligations increased the distress which embraced all parts of the country, closed factories, shops and mines, deprived a large class of employment, and pointed the way to a winter of hardship and suffering.

To ease the situation the President and the Secretary of the Treasury determined upon purchases of five-twenties at the market price, and so from Saturday the 20th of Sept. to Wednesday the 24th the government released about $13,000,000 in green-backs. The Associated Banks also attempted to help by issuing a few millions of certificates through their Loan Committee, which served instead of currency and lessened the strain upon the regularly established monetary system. The stock-market was reopened Sept. 30th but the situation continued to be critical for some time.

Though the Wall Street panic was over, the commercial crisis continued. Railroad earnings fell off in November,

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2. Ibid., p. 434
3. Ibid., p. 431.
and others in the same month defaulted in the payment of
the interest on their bonds. No genuine revival of
business took place until 1878.

After Jay Cooke's failure the fate of the Northern
Pacific was problematical. The trustees issued statements
advising, almost imploring the bond-holders not to sell
their bonds, and pointing out that the property backing
them was still in existence and growing more valuable
every year. General Cass allowed it to be understood that
other financial backers would be found immediately. This
was easier said than done. The Panic sought the road
at Bismarck, with nearly three hundred unprofitable
miles of track already built, and there, to all intents
and purposes it stayed for five years.

The passing of the frontier came with the re-commencement of building in the eighties. The years from
1869 to 1884 cover the final period in the life of the last
frontier, and it was the delay in the completion of the
Northern Pacific that allowed a frontier to remain so long.

1. Rhodes, p. 115.
2. Oberholtzer, p. 437.
3. Paxson, p. 112.
Appendix A

Material on the Stevens Expedition

I. Instructions for the Expedition. April 5, 1853. Senate Executive Documents, 33rd Congress, 1st session, II (691) no. 1, p. 55.

... To operate from St. Paul or some suitable point on the upper Mississippi River towards the great bend of the Missouri, and thence, on the table-land between the tributaries of the Missouri and those of the Saskatchewan to some pass in the Rocky Mountains. A depot to be established at Fort Union at the mouth of the Yellowstone River, by an advance party going by boat with most of the supplies from St. Louis. This division to wait at Fort Union the coming of the main party overland and in the meantime to examine the country adjoining the fort.

While the main party was working westward a second large expedition was to proceed by water to Puget Sound and explore towards the east through the Cascade mountains. Governor Stevens was to fix a meeting place for the two groups.

The detailed instructions require that Stevens "examine carefully the passes of the several mountain ranges, the geography and meteorology of the whole immediate region, the character as avenues of trade and transportation, of the Missouri and Columbia rivers, the rains and snows of the route, especially in the mountain passes, and in short, to collect every species of information bearing upon the question of railroad practicability. It was necessary, moreover, to give great attention to the Indian tribes, as their friendship was important and bore directly upon the question both of the Pacific Railroad, and the safety of the party."

Personnel of the Stevens Expedition

Governor Stevens in charge
Captain G.B. McClellan, asst. to Stevens, head of the western expedition
Captain J.W.T. Gardiner, asst. to Stevens.
Lieutenant A.J. Donelson with ten sappers and miners.
Lieutenant Beckman du Barry.
Lieutenant John Mullan.
Lieutenant Cuvier Grover.
I.F. Osgood, disbursing agent.
J.W. Stanley, artist.
George Buckley, surgeon and naturalist.
F.W. Lander and J.W. Tinkham, assistant engineers.
G.W. Stevens, W.M. Graham, and A. Remeny, astronomers.
J.W. Moffett, meteorologist.
John Evans, geologist.
Thomas Adams, Max Strobel, Elwood Evans, A Jekelfalnzy, aids.
T.S. Everett, quartermaster and commissary clerk.
J. Winter.
Lieutenant Mowrey.
George Gibbs, ethnologist, geologist and interpreter.
Lieutenant Hodges, quartermaster for McClellan party.
Lieutenant Duncan.
Dr. J.G. Cooper, surgeon and naturalist.
Lieutenant Saxton, quartermaster of the Western division on the West Coast at time of appointment.

The Four Separate Parties.

1. The party under Governor Stevens went from St. Paul towards the White Earth River and then along the Missouri to the Rockies.
2. The party under Captain McClellan went from Fort Vancouver east through the Cascades.
3. The party under Lieut. A.J. Donelson explored on the Missouri from its mouth to Fort Union at the mouth of the Yellowstone, and there joined Stevens.
4. Lieutenant Saxton led his party from Fort Walla Walla to the Bitter Root Valley, and there established a supply depot.

For further information on this expedition consult Albright, 45-84.
Appendix B

Chief Engineer Johnson's Survey of the Line
Smalley, p. 148

Johnson presented his report Nov. 1867. Surveys in Minnesota and Washington Territories were not completed but Mr. Johnson was able, however, to prepare a map showing a preliminary location of the entire line from Lake Superior to Puget Sound. There were two routes across Minnesota:
1. Superior City to Red River by Crow Wing River,
2. Bayfield to Sauk Rapids, and to Breckenridge.
The two lines converged at the bend of the Cheyenne River in Dakota. Both crossed the Red River at points considerably south of the crossing afterwards adopted within the sites of the present towns of Moorhead and Fargo. The line across Dakota crossed the Missouri near Fort Clark, about 30 miles north of Bismarck and thence west to the Yellowstone crossing not far from the mouth of Glendive Creek. Instead of following up the valley of the Yellowstone, as does the completed road, this projected line was run on the high plateau north of the River, and bending to the northwest about 20 miles north of the Big Horn River, passed between the Judith and the Belt Mountains to the great falls of the Missouri, where it crossed that river. Short branches were planned to Big Horn City and Fort Benton. Then the line ran through the Gates of the Mountains and up the Missouri and Dearborn Rivers to Cadotte's Pass, in the Rocky Mountains. On the west side of the mountains the route was about the same as subsequently adopted, following down the Hell Gate River, crossing to the Jocko, and descending that stream to the Clark's Fork of the Columbia and to Lake Pend d'Oreille and from there straight to the mouth of the Snake River. The route to Puget Sound was by way of the valley of the Yakima and the Snoqualmie Pass to Seattle. The estimated length from Lake Superior to Puget Sound was 1,755 miles, and to Portland 1,775 miles. Johnson estimated the cost of construction and equipment at $140,377,500 to Puget Sound, and $16,480,000 for the Oregon branch to Portland, the average cost per mile being $79,421.
Appendix C

Military Forts and Indian Tribes in the Military Division of the Missouri

Hostile Indians, Introduction.

Departments:
Dakota - Forts Assinaboine, Custer, Ellis, Keogh, Maginnis, Missoula, Shaw, and Camp Poplar River, Montana Territory; Forts Abraham Lincoln, Bennett, Buford, Hale, Meade, Pembina, Randall, Sisseton, Stevenson, Sully, Totten, Yates and Cantonment Bad Lands, Dakota Territory, and Fort Snelling, Minnesota.

Platte - Forts Cameron, Douglas and Thornburgh, Utah Territory; Fort Hall, Idaho; Forts Niobrara, Omaha, Robinson, and Sidney, Nebraska; Forts Bridger, D.A., Russell, Fred Steele, Laramie, McKinney, Washakie, and Camp at Cheyenne Depot, Wyoming Territory.

Missouri - Forts Bliss and Elliot, Texas; Forts Hays, Leavenworth and Riley, Kansas; Forts Garland, Lewis, Lyon, Camp near Cantonment on the Uncompahgre on the Snake River, Wyoming Territory; Forts Bayard, Craig, Cummings, Marcy, Selden, Stanton, Union and Wingate, New Mexico. Also Departments of Texas and the Gulf.

The principal Indian tribes living within the Division.
In the north, Dept. of Dakota - Sioux, Northern Cheyennes, Crows, Chippewas, Poncas, Assinaboines, Flatheads, Piegan, and Gros Ventres.
Dept. of the Platte - Bannocks, Shoshones, Utés, Arapahoes, Kiowas, Comanches, Apaches, Navajoes, Puebloes, and the semi-civilized tribes of the Indian Territory, (Choctaws, Cherokees, Chichasaws etc...)

... With the best information obtainable, however, the entire number of Indian tribes embraced within the limits of the military division of the Missouri is ninety-nine, aggregating about one hundred and seventy five thousand persons, who are scattered over an area of more than a million square miles of frontier country.
Appendix D

A Copy of One of Jay Cooke's Pamphlets Advertising the
Northern Pacific Bonds.

Railroad Pamphlet, p. 30-33

The New 7-30 Gold Loan of the Northern Pacific Railroad
secured by First Mortgage on Railroad and Land Grant.

We offer for sale at par and accrued interest the
First Mortgage Land Grant Gold Bonds of the Northern
Pacific Railroad Company. They are free U.S. tax, and
are issued in the following denominations: Coupons
$100, $500, and $1,000. Registered $100, $500, $1,000,
$5,000, and $10,000.

The Road. The route of the N.P.R.R. is as follows;
Starting from Duluth, Minnesota, at the head of Lake
Superior, and from St. Paul to Minneapolis on the
Mississippi River. The two eastern arms unite in
central Minnesota; from the point of junction the
trunk line extends westward through central Dakota and
central Montana. At a convenient point in Montana
the road will again branch, one arm passing through
Central Washington to the main Ocean Terminus on Puget
Sound - the other following down the valley of the
Columbia through southern Washington and northern
Oregon to Portland, at tide water on the Columbia
River. A shore line - now building - will unite the
western termini. Still another branch will leave the
main line in Western Minnesota, and extend north through
the Red River Valley to Pembina on the border of
British America. Nature has levelled a pathway for
the Northern Pacific Railroad from the Lakes to the
Ocean. All through the Rocky Mountains region the
elevation is some 3,300 feet less on the Northern line
than on the Central route. The Cascade Range, which,
on the Central, is scaled at a height of 7,042 feet,
is crossed by the Northern Pacific nearly at sea-
level - through the channel cut by the Columbia River.
On the Northern Pacific line no tunnels will be needed,
and probably no grade to exceed 50 feet to the mile.
The construction of the Northern Pacific Road
shortens the distance by rail between the Lakes and
the Pacific Ocean nearly 600 miles. It shortens the
distance by water and rail between New York ( or
Liverpool ) and the ports of Asia some 1,400 miles.
Connections. At St. Paul and Minneapolis the Northern
Pacific Railroad system connects with the navigation
of the Mississippi River, and the various lines of Railroad extending through Chicago to the Atlantic coast, at Duluth with the commerce of the Great Lakes and the St. Laurence; at Pembina with a thousand miles of river and Lake navigation in British America; at Puget Sound, when completed, with the commerce of the Pacific ocean and the trade of Asia; at Portland, Oregon, with the coast lines of the road, the traffic of the Columbia, and the coastwise trade of the sea.

At short intervals across the continent the Road intersects many navigable streams such as the Mississippi, the Red, the Missouri, The Yellowstone, The Clark, The Snake, The Columbia, and the Cowlitz, bringing to it the trade of a vast and fertile country on both sides of the line.

Rapid Progress in Construction. Ground was broken in July, 1870. Several thousand men have since been constantly employed on the line. At this time (July 1871) the grading is nearly finished for 266 miles from Lake Superior to the eastern border of Dakota, trains running over 140 miles of completed track, the Mississippi River is bridged at Brainerd, and once more joined to the Lakes by rail, and track-laying is rapidly progressing westward. Before the close of the present year, trains will run to the Red River, and the grading will probably be far advanced toward the Great Bend of the Missouri River in central Dakota.

In the meantime work has been commenced the present season on the Pacific coast; a force of men is already employed in the valley of the Columbia River, and hereafter the work of construction will be pushed eastward and westward toward the center with such rapidity as the best interests of the Road may justify.

Including its purchase of the St. Paul and Pacific Road, the Northern Pacific Railroad Company has 460 miles of road now in operation, and before the close of the present season the length of the finished track will be at least 550 miles.

The New Northwest. The Northern Pacific Railroad will centrally traverse and draw its traffic from a Fertile Belt of country 1800 miles long and at least 700 in width - stretching from the Great Lakes in the east to the Pacific Ocean on the West. Taken as a whole the region thus to be developed by this great highway is not surpassed by any area of like extent on the continent for abundance and diversity of natural resources, and capacity for sustaining a dense population. Besides its wealth of minerals and
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It admirably combines the three essentials of a good farming country, namely, a mild climate, a naturally rich soil, and a fair supply of moisture. The climate of the New Northwest, heretofore much misapprehended, can be best understood by comparing it with that of better known localities Thus: The climate of Minnesota (one of the chief attractions of that great and prosperous state) is like that of New York, yet without its dampness and chill. From Minnesota westwards the seasons grow steadily milder, modified by the warm winds of the Pacific and other influences, so that Dakota has the climate of Iowa with a drier and more invigorating air; Montana that of Ohio without its winter discomfort and changeableness; Washington and Oregon, on the Pacific coast have the climate of Southern Virginia, with more rain and cooler summer nights. At the western terminus of the Northern Pacific Railroad, flowers have bloomed in the open air every month of the past winter, and along most of the Fertile Belt traversed by the Road, cattle readily subsist the year round on the nutritious grass of the plains and valleys. Gov. Potts of Montana, writing to a friend in Ohio says; "The valleys of Montana are scarcely covered with snow. The cattle run at large during the entire year, no grain or hay is fed them, yet they come out in the spring as fat as the best stall-fed cattle in Ohio." the snowfall is much less, and the rainfall much greater along the Northern Pacific route than along the Union and Central Pacific; and neither will be obstructed by snow. The capacious and land-locked harbors of Puget Sound, the giant timber of Washington Territory, the gold and silver mines of the Rocky Mountain region, the mineral wealth and fertile lands of Montana, the wheat and grazing lands of Dakota and the tributary British Provinces, and the farm and timber land of Minnesota — added to the climate singularly healthful and pleasant — are some of the attractions of this new region that is now fixing the attention of the country. Business of the Road. The N.P.R.R. will have no rival for the carrying trade of the New Northwest. Other roads across the continent will have an ample field for a prosperous business of their own — the Northern Pacific has a field still more ample. The country tributary to the Northern Pacific Road would make ten states as large as Pennsylvania and is wholly unsupplied with railroads. The immense and profitable traffic enjoyed by the Central and Union Pacific Line, even during the first full year of operation, is some intimation of what will be the business
of the Northern Pacific Road, located as it is on a shorter line, with much easier grades, under a milder climate, through a country ten-fold more productive and already containing a greater population than that which awaited the building of the Central line. Some of the sources of the traffic that now awaits the completion of the N.P.R.R. are these.

1. The local carrying trade of the present population of the states and Territories traversed.

2. The transportation of the mails, troops, and military supplies - a service which now costs the government over Six Millions annually.

3. The trade of the British settlements occupying the fertile valleys of the Red and Assiniboine Rivers, the Winnipeg Basin, and British Columbia.

4. The immense freighting business of the Hudson’s Bay Company the whole of which will accrue to the N.P.R.R.

5. That portion of the large through traffic between the Atlantic and Pacific Oceans, and between Asia and Europe, which must pass over this line owing to its advantage in shortness, directness, and ease of grades.

6. The bulk of the business now done by the steamers plying on the many navigable rivers tributary to the Red.

7. The transportation and distribution of the thousands of settlers already moving to the fertile country through which the Road passes, the carrying of whose supplies and products will furnish a constantly increasing business.

8. The transportation to market of the Grain Crop of the New Northwest. This region is the home of winter wheat.


10. The transportation of ores of the precious metals from the mines along the Road to the smelting works at either extremity.

11. The shipment of cattle from the natural pastures of the Fertile Belt to the Eastern market.

The Land Grant. The Land Grant of the N.P.R.R. consists of 12,800 acres to each mile of track through Minnesota, and 25,000 acres per mile through Dakota, Montana, Idaho, Washington, and Oregon - the branch to Puget Sound having the same grant as the main line. The average for the whole length of the Road and branch is over 25,000 acres per mile, and the total exceeds fifty million acres. Of the quality of these lands it is enough to say that they lie in the richest portion of that fertile New Northwest described. Of them it was estimated by Governor Stevens that fully four-fifths of the land grant was suitable for cultivation or grazing, and that most of the remainder is
mountain land either heavily wooded of filled with precious minerals. At even the average of $4.00 per acre the Northern Pacific will pay for its construction and equipment, and leave the Road free from debt, and one-half the lands unencumbered in the Company's possession. As fast as the road progresses the Company's lands will be opened to sale and settlement at moderate prices, and on easy terms of payment. The rapidity with which settlers are already moving to the line of the Road, the numerous colonies now forming in various parts of the country tributary to their Road, give assurance that the lands of the grant will be absorbed as fast as desired.

7-30 Gold Loan. These securities have the following features:

Coin Payment — principal and interest are payable in gold, the principal at the rate of thirty years, the interest half-yearly, in January and July.

Rate of Interest — these bonds bear seven and three-tenths per cent. interest, or, at present gold premium, more than eight per cent. currency.

Safety — they are secured by the first and only mortgage on all the Property and Franchises of the N.P.R.R.Co.

As an investment for persons of moderate means these bonds are especially desirable, combining as they do a high rate of interest with that complete security that this class of investors ought always to insist upon... These bonds will at all times be receivable at the ten percent premium, or $1.10 in payment for the Company lands at their lowest cash price. This feature, which gives these securities the additional character of Land Warrants, with interest coupons attached, will keep them in constant demand, and, as land sales increase, together with the profitable rate of interest, should hold these securities considerably above par.

Sinking Fund. By the terms of the mortgage the proceeds of all sales of lands are devoted to the repurchase and cancellation of the Company's bonds, so long as they can be obtained at $1.10 or less. This provision will make the railroad itself a constant and heavy purchaser of its own securities in the open market from the time the road is completed until the bonds mature, or all bought in.

Trustees—Messrs. Jay Cooke, of Philadelphia, and J. Edgar Thompson, President of the Pennsylvania Central Railroad Company, are the trustees of the general mortgage, who directly represent the bond-holders, control the lands of the N.P.R.R.Co., and have charge of the Sinking Fund.

A Profitable Investment — Probably no other first—
class security now accessible to the people yields so large an income, coupled with unquestioned and absolute safety. Compared with government five-per-cent and six-per-cent ... the comparative productiveness, through a term of years, is as $500 is to $903, or as $600 is to $903.

Bonds Exchangeable The registered bonds can be exchanged at any time for coupons, the coupons for registered, and both these can be exchanged for others, payable, principal and interest, at any of the chief financial centres of Europe, in the coin of various European countries.

Converting U.S. Five-twenties. In view of the government's expectation soon to call for the surrender of its six per-cent bonds, under the present movement for funding the public debt at lower interest, many holders of the Five-twenties are converting them into Northern Pacific Seven-thirties, thus realizing a handsome profit in the exchange, and greatly increasing their income.

Other Securities. All marketable stocks and bonds will be received at their highest current price in exchange for Northern Pacific Railroad Seven-thirties. Express charges on remittances received, and on seven-thirties sent in return, will be paid by the Financial Agents.

Agencies, for the sale of Seven-thirties are established in nearly every city and important town throughout the United States and Canada. Persons living remote from banks can address the undersigned directly. Further information, pamphlets, maps, etc., will be furnished on application, by any of the Banks or bankers acting as Agents for the loan.

For sale by
Jay Cooke and Company
Fiscal Agents Northern Pacific Railroad.

The terms upon which lands could be purchased from the company were fixed as follows: (Oberholtzer p. 308)

10% in cash, 10% in one year, 10% in two years, 10% in three years, and 15% annually thereafter, the payments thus covering seven years. The company charged 7% per annum upon deferred payments. The arrangements were at every point very favorable to the poor, and it was intended that no obstacle of a pecuniary nature should be interposed to hinder the rapid settlement of this belt. Immigration offices were set up to aid and direct settlers, and to care for them until they should have located their farms.
Appendix E

The Charter, Mortgage, and Officers of the

N.P.R.R. Co.

R.R. Pamphlet p. 5-14, 19-29, 3.

The Charter — An Act granting lands in aid of the construction of a railroad and telegraph line from Lake Superior to Puget Sound, on the Pacific Coast, by the Northern Route.

... Said Corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances thereof, namely, beginning at Lake Superior, in the state of Minnesota or Wisconsin; thence westerly by the most eligible railroad route, as shall be determined by said company, within the territory of the United States, on a line north of the forty-fifth degree, of latitude, to some point on Puget Sound (construed to mean all waters connected with straits of Fuca by Act of March 1st, 1869) with a branch via the valley of the Columbia River to a point at or near Portland, in the State of Oregon, leaving the main trunk line at the most suitable place, not more than three hundred miles from its western terminus; and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of the Act as herein set forth.

... Capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all respects be deemed personal property.

... The right of way through the public lands is granted to said "N.P.R.R. Co." ... and the authority is hereby given to said corporation to take from the public lands adjacent to the line said road material of earth, stone, timber, etc. Said way is granted to said railroad to the extent of two-hundred feet in width on each side of said road, where it may pass through the public domains....Right of way is to be exempt from taxation in the Territories of the United States...

Land Grant — of every alternate section of public land not mineral, designated by odd numbers, to the extent of twenty alternate sections per mile on each side of the railroad line... in the Territories...and the alternate sections in the states.... Deficiencies
owing to previous ownership to be made up... mineral lands not to be granted, acreage made up in other places....No money shall be drawn from the Treasury of the United States to aid in the construction of the Northern Pacific Railroad.

The road must be well and solidly built, with a uniform gauge. A telegraph line is also to be built. The Railroad is to allow connections with other roads on fair and equitable terms.

The land grant is to be surveyed and taken off the homestead land. The government is not to sell land adjoining a railroad grant for less than $2.50.

The privileges are given on condition that:
1. Work shall commence within two years from the approval of this act by the President, and shall complete not less than fifty miles a year, after the second year, and shall construct, equip, and furnish and complete the whole line by the fourth day of July, eighteen hundred and seventy-six.
2. Congress may do anything necessary to insure speedy completion of said road if conditions are broken.
3. Everybody may subscribe to the stocks, and the road is not to be mortgaged.
4. The railroad is to be used for a post-route and military road.
5. Acceptance of this Act must be signified by the Board of Directors.
6. There must be annual reports to Congress from the Board of Directors.
7. The Directors must be stock-holders.
8. The railroad must obtain the consent of the State Legislature of any State through which the road is to pass before beginning construction.

Amendments

1866 — extending time for beginning construction 2 yrs.
1868, and providing for completion by July 4, 1877.
1869 (March) Right to mortgage conferred, and Puget Sound defined.
1869 (April) Defining route of Portland Branch, no money or land subsidy to this branch.
1870 (May) Authorization to issue bonds for the construction of the road and to secure them with a mortgage. Land grant for Portland Branch. All lands not sold or mortgaged five years after completion of the road to be sold for not more than $2.50 per acre.
The Mortgage Agreement Between the N.P.R.R. Co.,
and Jay Cooke and John Edgar Thompson.

The mortgage covered the property and franchises. Sale of land was permitted the railroad at any time if the price were fair, no land was to be sold for less than $2.50 an acre. All proceeds of such sales were to be deposited with Jay Cooke, and the money was to be used to help pay off the mortgage.

Jay Cooke and Thompson were to sell the bonds, and to invest all money coming to them from the railroad land sales in these bonds. Interest on the bonds set at $7.50 per annum per $100.

The Trustees (Cooke and Thompson) were to have almost complete power of supervision and management of the Road.

Organization of the Company.

Trustees for the First Mortgage Bondholders:
Jay Cooke and J. Edgar Thompson.

Officers of the Northern Pacific Railroad Company:
J. Gregory Smith, President
R.D. Rice, vice-president
Samuel Wilkeson, secretary
A.H. Barney, treasurer
W. Milnor Roberts, engineer-in-chief
Edwin F. Johnson, consulting engineer.

Board of Directors:
J. Gregory Smith - St. Albans, Vermont.
R.D. Rice - Augusta, Maine.
Thomas H. Canfield - Burlington, Vermont.
Wm. B. Ogden - Chicago, Illinois.
Wm. G. Morehead, Philadelphia, Penn.
Wm. G. Fargo - Buffalo, New York.
B.P. Cheney - Boston, Mass.
Geo. W. Cass - Pittsburgh, Penn.
Frederick Billings - Woodstock, Vermont.
William Windom - Winona, Minnesota.
James Stinson - Chicago, Illinois.
Samuel M. Felton - Philadelphia, Penn.
Charles B. Wright - Philadelphia, Penn.

Executive Committee:
J. Gregory Smith  William G. Fargo
R.D. Rice  William Windom
William B. Ogden  S.M. Felton
George W. Cass  Charles B. Wright

Financial Agents for the Railroad Company:
Appendix F

Excerpts From the Letters of Major General Stanley to his Wife, While on the Yellowstone Expedition of 1873

Stanley pp. 238-271.

Fort Rice, June 12th.

... I met General Terry here, and I think I can arrange everything satisfactorily with him. There will be a certain amount of trouble which I think I can encounter and conquer.

Camp 45 miles from Rice, June 26th, 1873.

... We have had a hard time on account of storms; it rained every night and four days out of six the first six days we were out. This is the seventh day from Fort Rice and we lie over on account of high water delaying our crossing of the Heart River. The winds have been terrible, and the whole prairie has become a swamp. I think now we shall do better as it appears to have cleared up.

23th (apparently June)

Yesterday we moved to join the engineers, travelling nearly all day in pouring rain. Today after hard work we made just three miles, and it rained for two hours in torrents. I will try to get a train off for Fort Lincoln the 1st of July which will carry this ....

... I have had no trouble with Custer, and will try to avoid having any; but I have seen enough of him to convince me that he is a cold-blooded, untruthful, and unprincipled man. He is universally despised by all the officers of his regiment excepting his relatives and one or two sycophants ... as I said I will try, but am not sure I can avoid trouble with him.

... As for our plans; I expect to send this train to Lincoln for 25 days' forage, and when the train returns to start either Bradley or Custer with 12 companies, cavalry and infantry, to the Yellowstone, and myself take care of the surveyors until we reach our Depot on that river. We will then stockade the Depot, leave a garrison, and go on with the summer's work. There is but one party of engineers, so after
we reach the Yellowstone our forces will not be again divided.

... I hope to make the expedition a complete success. For Joe's information we are now in Muddy fork of Heart River, 15 miles from its mouth, and intend to move nearly due west until we strike Heart River just where we left that stream and commenced running Smolley's instrument last year. We then expect to follow mainly Sully's route to the Little Missouri....

Camp Pompey's Pillar, Yellowstone, Aug. 15, 1873.

... We came to this place today and will be here over tomorrow and then take up the march for the Muscle Shell River which is forty miles north of us, and hope to reach it on the 19th, i.e. in three days' march. We plunge into an unknown country and I dread it somewhat, owing to the repeated scarcity of water.

... Our March to this place was made in 21 days, 3 of which we laid over in camp. These 18 days have been days of as hard work as I ever put in as a soldier. Several days we marched and worked 13 hours a day, from 5 in the morning until 6 in the afternoon. The weather has been very hot, at least five days 110° in the shade. Mr. Ray (Philip Henry Ray, subsequently Brigadier General, U.S.A.) is the most useful member of my staff, as he has good judgement, is very practical, and never gets lazy, which I cannot say for most of the officers.

... Before you get this you will learn by telegraph that we have had two fights with the Indians. This all fell to the share of the cavalry, which did very well, all men could do, and if we did not accomplish much it is not because we did not try hard.

We camped the night of the 31st above Powder River with the Josephine. The next morning we found the Indians prowled about camp as they continued to do each succeeding night until the 4th of August. Custer, who by the way has behaved very well, since he agreed to do so, went ahead every day to look up road and select the best camps. On the 4th he had 85 men, one squadron. He made his march by nine o'clock a.m., and was resting in a small grove when Indians showed themselves. He followed these but avoided the bottom of timber they ran into. Immediately 300 Indians charged out. Custer dismounted and fought on foot for an hour when, finding the Indians would do nothing, he mounted his men and charged them, driving them like sheep. He knows he killed two Indians only.

Four days afterward we discovered the trail of a
of a village moving, and I sent the Cavalry the night of the 8th to overtake and destroy them. On the 10th Custer discovered that the Indians had succeeded in crossing the river. He tried most of the day, 10th, to cross but could not do it. At daybreak on the 11th the Indians attacked him from the bluffs and from across the river. The troops held the Indians on the bluffs back until the horses were saddled up, when the whole force charged them, running them many miles. In this affair Custer had about 400 men, the Indians about 500. I had no part in either fight, nor do I care to have. Lieut. Braden has his thigh bone shattered by a bullet in the upper third. One man, Tucker, Custer's orderly, was killed, and three men wounded. Ketchum had his horse killed under him, shot in the head.

In the first fight Custer had only one man wounded, but a soldier named Ball, the Veterinary Surgeon named Honsinger, and Custer's trader, a Frenchman named Balleran, straggled from the main column and were murdered by a party of Indians. The trader and horse-doctor had no arms. The trader leaves a young wife and baby in Memphis. He was one of the men who gave me much trouble by disobeying orders and bringing liquor, but I forgive him now and am sorry for his untimely fate. The Veterinary was a fine old man of sixty, a widower with two grown sons. Ketchum, Mr. Jones, Frost, the two young English lords, and many others were in the fight as volunteers.

August 16th.

We lay in camp today, first day's rest for fourteen days. About half an hour ago camp was alarmed by repeated shots at the river. I pushed troops at once to the front of the mule herds. In a few minutes I learned that six Indians had crawled up on the river (about 150 yards wide) and fired a shot apiece at the men bathing. The way that naked men travelled out of that river would have astonished the admirers of the Black Crook. The Indians ran and fortunately no one was hurt. These are our little episodes. .....

There are other letters in this series, but most of the material is found in Stanley's official report, or is of a purely personal nature, so I do not include it.
Bibliography

Albright, George Leslie, official Explorations for Pacific Railroads 1853-1855, Vol. XI of University of California Publications in History, Univ. of Cal. Press, Berkeley, 1921. A very valuable secondary account which makes large use of sources, and is absolutely authentic as far as I can discover. The material is drawn mainly from the official reports made to Congress following these expeditions.


Canfield, Thomas Hawley, Life of Thomas Hawley Canfield, Donohue and Henneberry, Burlington, Vt., 1889. One of the poorer accounts, there are no references, footnotes, bibliography, index, or definite quotations. The main character is widely overdrawn. It seems to have missed the facts in a few cases and is not to be relied on without confirmation.

Coman, Katherine, Economic Beginnings of the Far West, in 2 vols., Vol. II, New York, Macmillan, 1912. Written in a semi-popular style, with footnotes that are neither complete or convenient of access, the book is scholarly enough for the average reader. The material is sketchy, but what there is seems to be accurate.

Cooke, Jay and Co. issuers, Northern Pacific Railroad, The Charter and Amendments, The General Mortgage and Land Grant, and Copy of First Mortgage Bond, In Reports of Railroads 1864-1876, pamphlet without date or place of publication listed. In Library at State Capitol. This is source material, copied from the official records and checking at least with the Congressional Record.


A good review of the development of the Pacific Railroads, though not very detailed. It is well footnoted and is written in an interesting and clear style. A good piece of secondary work.


Source material of the best type. Very valuable.


Apparantly written from source material found in the newspapers, magazines, and gov't. documents. It is a scholarly and detailed piece of work, excellently footnoted, but with no index or bibliography.


A not very scholarly piece of work, taken from the best sources, but completely unfootnoted, no bibliography. All material taken from this source has been rechecked if possible. It seems authoritative, but cannot be trusted.


A collection of letters and military reports. Good source material.


Source material, a pamphlet on the set-up of the N.P.R.R. issued by Jay Cooke and Co.:

Maps:

Oberholtzer, op. cit. p. 228. Excellent map of the Land Grant issued in connection with advertising material by Jay Cooke.


Case, Lockwood and Company, Printers, Hartford, Conn., 1867.

The map connected with report is extremely valuable.
showing the proposed route of the road, and most of the forts and trading posts atec. that are missing on later maps. The route does not correspond to that later followed by the N.P.R.R., but as the first definite map of the whole line it is of interest, and as a map of the west in 1867 it is invaluable.

Map of the N.P.R.R. in 1891, traced from the map in the fiscal report of the Great Northern Railroad for that year.
Letters of Montgomery Meigs to his Family

written January 14, 1872 to September 11, 1873

While engaged in the

Survey for the Northern Pacific Railroad
Preface

These letters were written by Montgomery Meigs, resident engineer engaged in the survey of the Northern Pacific Railroad from 1870-1873. Unfortunately the first group of letters was destroyed, and only those for the last two years of the time are available. They have been quoted verbatim, except for the omission of entirely personal remarks concerning only the writer and his immediate family.

Montgomery Meigs was the son of Montgomery Cunningham Meigs (1816-1892) and Louisa Rodgers Meigs, the daughter of Commodore John Rodgers. He was one of seven children, four of whom lived to maturity. His eldest brother, John Rodgers Meigs, was killed in action during the Civil War. M.C. Meigs was an important man in Army engineering. He was in charge of the construction of the Washington aqueduct, the wings and dome of the National Capitol, and the extension of the General Post Office building as well as numerous smaller undertakings. He was appointed quartermaster-general during the Civil War, and in that capacity earned the praise of all associated with him. After the Civil War he continued to receive many national honors, and was buried in Arlington Cemetery with high military honors.

Montgomery Meigs was born in Detroit, February 27, 1847.
His education was excellent, and it was completed with two years at Lawrence Scientific School at Harvard, and two years at the Polytechnic School in Stuttgart, Germany, from which place he returned in 1869.

At this time, then, when he was about to enter the employ of the Northern Pacific Company, he was twenty-two years old, unmarried, and just out of college. I have been told that he was handsome, though a little stout, and was quite the ladies' man. He was also well grounded in engineering, and possessed of qualities of leadership, an excellent brain, and an agile comprehension. Of his vices, if any, I have heard nothing.

In 1870, perhaps through his father's influence as much as through his own excellence, he secured a position as resident engineer on the Northern Pacific, which he held until construction was brought to a halt by the crash of 1873.

From 1874 until his retirement in 1926 he was engaged in the improvement of the Mississippi River from St. Paul to the mouth of the Missouri, and was, during that time, in charge of many different engineering projects.

From 1882 until his death he lived in Keokuk, Iowa, from where a large part of his work was easily accessible, as he was in charge of the U.S. Des Moines Rapids Canal there, the construction of the U.S. dry-dock, and also the great lock and power developments at the same place.
In 1898 he aroused much interest in scientific and engineering circles by suggesting a new method of improving country roads by using oil with a sprinkler to make a water-tight surface and lay the dust. He was also the inventor of a "canvas cofferdam" for use in foundation work and like problems of construction. He built and designed many steamboats and dredgestenders for the United States service on the Mississippi and other Rivers.

In 1926 he was retired under the pension law after fifty-three years of active service.

He married Grace C. Lynde near the year 1875, though the exact date is not available, and had six daughters, all of whom lived to maturity. His wife died when the eldest daughter was approximately fifteen, leaving him at the head of a household of six small girls with nurses and governesses, maids and cooks, housekeepers and elderly female relations who often totalled over twenty women. He was a patient man.

In the later years of his life, when I knew him, he was a portly old gentleman with a bald head, rosy cheeks, twinkling eyes and a walrus moustache. His sense of humor was magnificent, and his temper, except for a "before-breakfast groucho", admirable. He was the most patient of men, and yet seemed to have developed the habit of getting his own way in spite of his six daughters and his opinionated housekeeper. He was fond of and interested in every
form of animal life about him, and often waked me far earlier than I cared for to take me into the woods to watch the birds and butterflies before the Iowa sun forced them to cease their activities.

He was the most vigorous and alive man for his age that I have ever seen. He drove his own car with all the recklessness and abandon of youth, and there was little that happened that he missed. Until his sudden death in December, 1931, at the age of eighty-four, his mental faculties and understanding, and his interest in the world around him never weakened.

He was well and honorably known in his profession, and was a member of the American Society of Civil Engineers, and of the A.A.A.S. For his work on the Des Moines Canal he was given the rank of Major, U.S.A., and there were few people in Keokuk who did not know and like, or pretend to like, "the Major".

Material also from my mother and other members of the family, and from friends.
James River
Jan. 14, 1872

My dear Mother:

We moved in here two days ago from our camp at the Big Conlie. I have at last received my new tents and am comfortably established. The large tent sent me is quite a curiosity of construction and a very fine piece of work. It is completely double all through -- roof, sides and door, as in the sketch. This makes it very warm and having two stoves, in diagonal corners, and plenty of wood we can stand the coldest weather it can blow without discomfort.

I got two letters from you today, one dated Christmas, and the other dated Dec. 30....

We have had lovely weather for the last two weeks. The thermometer has rarely been below freezing, and bright still days that made it a real pleasure to be out of doors have succeeded each other to an extent that has astonished us all in this land of snow and storms. To-night however it blows great gusts and the tent slapping against the camp table at which I write makes it difficult to see the letters.

The Valley where we are now camped is a pretty one. High bluffs on each side enclosing meadows about one mile wide from bluff to bluff with the winding river bordered with large trees make a landscape worthy of the artist's pencil.

---

1 James River - Now Jamestown, N. D.
in summer. Now great banks of snow hang on the side hills and fill up the ravines, while the even sheets of untrodden snow which the meadows wear help to give a real arctic look to the scene. Still the tents nestle under the hill and among the trees and curling smoke from the chimneys hints of warmth and comfort in them.

A branch of the James called the Pipe Stem River joins its waters with the James just below our camp and the R. R. line crosses both streams as in the sketch.

We are quite a little colony at this place. The soldiers have a comfortable board house. There is an ice house in process of construction also, as well as a large stable, and three of my tents making quite a town.

We had an accident a day or two ago in the burning of a large hole in one of our tents through sparks falling on the roof, and we did not succeed in putting the fire out till it had made an opening large enough to crawl through...

I get along very well with my party. Reid, my transit man is a good fellow in every way and I don't often have to scold. I find it necessary however to get mad with the lazy men sometimes though not often. I don't know whether the men growl at me or not. I suppose they do however.

I enclose a kind letter from Mrs. Spaulding received today. I think she and the Gen. feel very kindly toward

---

1 Pipe Stem River - Joins James R. just below Durkee.
2 General Spaulding.
Eastman and myself.

I have gotten a little snow blind lately and find the candle hurting my eyes so I will close.

Best love to all.

Ever your affectionate son,

James River
March 10, 1872

Mrs. Gen. M. C. Meigs
Washington, D. C.

Dear Mother;

In a fit of absence of mind I have begun this letter officially, as I have been inditing several after the same model, but it will answer the same purpose as if it were in the more usual form.

I find things somewhat changed at this place. A Mr. Jones has been here in my absence and has filled out a party from my party and others and started for the Missouri. This leaves me somewhat minus.

Things have gotten mixed up too while I was away. Some of my men have left and so I find myself quite short handed.

It is a great change from the luxury of 1239 Vt. Ave.¹

¹ 1239 Vermont Avenue - the address in Washington, D. C.
to the rough life of camp, and I found myself quite re­
pelled when I entered my tent at James River and saw how
dirty it looked and forlorn. I immediately entered on a
crusade however and had a cleaning day which has much im­
proved the appearance of things.

I have two new men in my party. Stevens, a nice fel­
low, as assistant, and a topographer named Dohua. The
latter is a Pole, not physically I mean, but nationally.
He was educated in Berlin and entered the Prussian army.
There he remained a year or two, and then getting into
some difficulty with a brother officer, shot him in a duel
and had to fly the country, coming to America where he
has been ever since.

He is finely educated, speaks many languages, plays
the piano and guitar "a merveille" and sings German and
Polish songs with exquisite taste to the accompaniment of
the guitar. He is, moreover, an exquisite draughtsman,
and sketches, engraves, and ornaments beautifully.

In the evening he sings to us and it is a great treat
to listen to the old Polish national songs which he sings.

He is apparently a miserable man mentally, however, an
old bachelor of forty perhaps.

I must close for the mail. Best love to all.

Ever your affectionate son,
My dear Mother:

I received a note from you yesterday and was glad to hear you were all well.

I returned yesterday from a trip forty miles west of here out the Coteau, a high and desolate country without a stick of timber large enough to make a lucifer match, for miles and miles. At this season, swept by the winter storms that howl over the country and buried in snow it is bleak enough. It took four days to go and come and we slept one night five of us in a little tent nine feet square. The thermometer was fourteen degrees below zero.

I froze both feet but not badly and on taking off my stockings found them perfectly white. Only the skin was frozen however, and I thawed them out with snow and feel no ill effects.

I hope to move out from here in a day or two but cannot for want of wagons or sleigh.

We have had some very fine weather. Indeed one day it even thawed a little for a few hours in the afternoon.

I have made a sketch of our camp which I will send you.

Don't forget to send me Father's letters. Tell Loulie to write as I want to hear all the news.

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Coteau - Name used to designate the flat bare country between James R. and Missouri.
Is it true that Miss Laura Benjamin has gone on the stage? Some of the engineers here say they saw the fact stated in the "Police Gazette" a paper which is in great vogue among them.

Reid and some of my men I found on my arrival here had gone on an expedition to the Missouri River. They ought to be back in a few days.

It is storming furiously but our tent is comfortable. I wish you could see how warm and pleasant we manage to make it.

I write late at night and in haste. Give best love to all.

Ever your affectionate son,

James River
March 24, 1872

My dear Mother:

Still at James River. During the past week we have been out on line nearly every day. I have had the misfortune to get completely snow blind again and have suffered a great deal from it for two days past. My eyes are better today however and will soon be well again. The agony one endures from this disease is horrid. It feels as if on opening the eyes, some one should dash a hand full of dust
into them, and then thrust a splinter clean through the pupil of the eye back into one's head and leave it there. Two of my men suffered as much as I but we are all getting well.

We have had two violent gales this week. One is blowing now and the snow flies so that one cannot see two hundred feet. It is by no means so cold however as it used to be and getting warmer every day.

I enclose a sketch of our camp which may interest you. The tent in which I live is not shown as it was taken down for repairs.

I can't move from here till I get more teams, and I hope Gen. R.¹ will come along in a few days and bring relief.

There is no news. We are hoping for a mail tomorrow.

Yesterday the store house tent which you see in the sketch went up in the gale like a balloon and split all to pieces.

It is rumored from Fargo that the Contract for building the Road to the Missouri has been relit to a new set of contractors.

There will probably be a new expedition to the Yellowstone this summer but I do not expect to go.

Give my best love to all and write often. I have not yet received Father's letters nor the Mem. book.

¹Gen. R. -- General Rosser -- in charge of the surveyors.
In haste.

Ever your affectionate son,

James River
March 31, 1872

My dear Mother:

I have to announce a total change of program. Eckelson\(^1\) a few days since arrived from below bringing letters from Gen. Rosser. I was informed that a set of "Land Grabbers" was enroute for the Missouri to make claims and take possession of the R. R. Crossing before the engineers could get out there. I was ordered to turn my whole party over to him that he might hurry out and anticipate this move and locate a place for the R. R. bridge. He left next morning taking all but three of my men and leaving me here to enjoy a season of comparative leisure.

The morning after he left, the land grabbers appeared and halted for lunch near our camp. They had two wagons and five men and were extremely mysterious about their moves, but finding that Eckelson had started but ten hours before them they hurried on and the two parties are now racing for the River.

\(^1\) Eckelson - a town apparently named for this member of the surveying party - about 25 miles east of Jamestown, N. D.
I hope Eckelson will get there first and save the company a good deal of expense. Gen. Rosser and Mr. Linsley are expected here tomorrow and are going through to the Missouri. It is possible I may go with them as I am promised the Western Div. of the road. Meantime I am waiting.

We are having lovely weather and a great deal of the snow went off today. Yesterday evening however the thermometer stood at zero. It will not be long now before the floods in the rivers begin, and the grass begins to grow.

I am anxious to get away from here and get fairly to work with a full party. The season is advancing and the work will press when we once begin.

Best love.

Ever your affectionate son,

Missouri River Crossing 1
April, 1872

My dear Father:

I am here now and have already entered on the duties of my exalted position of Resident Engineer, (salary, I hope, $200 a month). I came out from James River with Mr. Linsley and Gen. Rosser and had quite a pleasant trip though somewhat
under restraint as regards Mr. Linsley our Asst. Chief and
and virtual Chief Engineer on this end of the road. Mr. L.
is a peculiar man. He is as kind as a razor and as prac-
tical as -----. I can find no simile appropriate. Every
word of a statement to him must be expressed in language
which leaves no room for a possible double meaning. His
thoughts and habits of reasoning are after the manner of
Euclid, and woe be unto the young man, so unfortunate as to
make a loose statement to him. No matter how plain his
meaning, his looseness of expression must be first hunted
down and exposed, demonstrated, and shown up, after that
process the conversation may proceed. This is to say the
least disagreeable. At times he is quite genial and a
moment after as cold and hard as a glittering icicle. But
I grow poetical.

Having no instruments here but a transit I shall have
to confine myself to making a map of the river bottoms and
river. When my party is sent me I am to locate the R. R.
line East and construct it. It is quite a great responsi-
bility for one of my experience, but I shall put on that
brazen panoply of proof called "cheek" and push on to vic-
tory. We have had a few terrific storms which I shall
describe later.

Mr. L. and the Gen. are starting back.

Love to all in haste.

Ever your affectionate son,
Carlton
Apr. 30, 1872

My dear Loulie:

I wrote last week via Ft. Rice and I suppose you have received the note ere this but the news it contained will be very stale when it reaches Washington. It takes about ten days for the letters via Ft. Rice to reach R. R. communications.

I have been hard at work on a survey of the localities at the mouth of Apple Creek where our new town of "Carlton" is to be. It is a pretty place, plenty of timber, a wide flat bottom backed by ranges of hills and bordered by the yellow and crooked Missouri that seeths and surges along towards the sea on its long journey.

A good deal of my work was on the other side of the river which is here nearly three quarters of a mile wide at high water, but at present not over fifteen hundred feet across. We have a log canoe which holds six people by squeezing them in rather tight, and to convey my party across required two and some times three trips. We always

1 Carlton - The Missouri R. Crossing - Now Bismarck, N. D.

2 Fort Rice - A govt. fort approx. 70 miles down and across the Missouri R. from Bismarck. The mail was brought here on horseback.

3 Apple Creek - A small tributary to the Missouri at Bismarck.
got wet crossing and had to wade across sloughs and mud flats sometimes up to the waist in water with great cakes of ice two feet thick floating about. The ice has nearly disappeared now, but came very near causing us a serious accident about a week ago. The river had fallen about a foot one morning when we crossed and all the heavy ice was aground on the sandbars leaving the river quite open, so we got across without difficulty and went to work. About four o'clock I returned to where we left the boat and found to my consternation that the waters had risen again and was filled with ice which came in packs down the stream at the rate of five or six miles an hour. Here and there huge cakes were aground on snags or sandbars and against such impediments the floating ice rushed and ground with a continuous roar and a resistless force that was not in the least reassuring. To stay where we were without provisions would necessitate our making a trip to Ft. Rice thirty miles below, on foot and with empty stomachs unless the river should fall before morning and that was very unlikely. To spend the night at this time of year in the open air without blankets or shelter was also a severe alternative so I concluded to risk the crossing.

There were six of us in the canoe which we previously hauled a long way up stream to give us a chance to float with the current and still strike our landing place on the opposite shore. We pushed out into the stream, and got
along very well till we got within one hundred yards of the shore when the floating ice was very thick. We would be moving fast to escape being crashed against a grounded cake and run into a floating one. Once we barely missed one of these formidable obstacles to navigation which rushed past our stern within a few inches and appeared to be going through the water with the velocity of a Hudson River steamboat. I could not help laughing at a Swede who was steering the boat and whose eyes stuck out so as we shot past that you could have knocked them off with a stick. A moment afterward we fortunately got into an eddy which helped us a good deal and getting into shoal water soon after we jumped overboard and pulled the boat into a place of safety, feeling thankful for a narrow escape.

You should see how the people are flocking in here and the new houses are beginning to dot the prairie. There are now perhaps two hundred people within five miles of here when six weeks ago there were only three woodchoppers living on the Island. There is no one living across the river yet however and we saw lots of tracks of game, elk, deer and some enormous grizzly or cinnamon bear tracks quite fresh.

I have had no letters for six weeks. We all expect a train from the East in a day or two, but it has been storming so that they have no doubt been delayed for the last three days. I expect my party, and orders to go to
work locating as well as letters from home. How I should like to just dine at home once even. Our provisions have run out and we are now living on pork and bread and molasses twenty-one times a week. One of the men shot a beaver a day or two since and we had him for two or three meals, but our cook did not know how to make beaver tail soup, and the most of us could not swallow the meat which had a strong fishy or musty taste. A good many of the men however devoured their portions and Oliver Twist like held out their plates for more.

Eckelson and I go out hunting sometimes, and get a few geese or ducks but don't often have the time.

The great excitement of the week has been the arrival of the "Nellie Peck" steamboat bound for Ft. Benton twelve hundred miles up the river. She brought no news for us but will soon be followed by N. P. R. R. boats.

It is getting late and I must close. Give best love to Mary and all the little ones and tell me all about Father's return and how he looks as I don't yet know where he is even.

Ever your affectionate son,

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1 Beaver tail soup - a delicacy much esteemed by beaver-trappers—it is made of the portion of the tail above the paddle-like part, and not of the paddle itself.

2 "Nellie Peck" - one of the steamboats carrying supplies etc. to Fort Benton. The N. P. R. R. Co. was planning on sending supplies for the surveyors up the river by boat until the line was built.
Missouri River Crossing
May 19, 1872

Dear Father:

I have been too busy to write for more than a week. After a long spell of comparative idleness Gen. Rosser has paid us a visit and dispatched Eckelson with a party across the Missouri and started me on my work here. The company acts foolishly it seems to me in using so much precipitation with their work. Instead of having their lines run ahead of the contractors it is nearly always the case that the contractors arrive on the ground before the line is staked out and then it is hurry scurry to give them work. This is the case now. I am ordered to stake out work and put men on it before a decent preliminary line even is run through to James River.\(^1\) Such operations involve loss to the Company and of reputation to the Engineers and the engineers get all the blame. But I am complaining when I have every reason to be satisfied with the confidence placed in my judgment. I only hope the result of my work may prove satisfactory.

We have been having miserable weather for this time of the year. Wet and cold beyond precedent, windstorms last from one day's end to the other accompanied by squalls of

\(^1\) A common criticism of the management. This rush was due to the desire of the directors to have a lot of work completed to show the stock buyers and Congress.
rain which last but a few moments but chill and discomfort one very much.

After Gen. R. left I ran a preliminary line about thirty-five miles out from here and returned today. I shall locate a small piece of line for the contractors tomorrow and next day, so that if they come they can be accomodated instanter. These were Gen. Rosser's orders.

"Burleigh" as they have called this place is growing fast. Claim shanties are now thick and they have a small town started even about three miles down the Creek. Still the real bustle has not yet begun as the contractors have not put in an appearance.

The Indians made a dash at Ft. Rice which you know is on the West side of the River and captured thirty ponies which they got off with. As these ponies however belonged to Indian Scouts and not to the Government, I don't attach much importance to the demonstration.

I received the book and glanced over its "golden" contents. I shall try and learn something from its wisdom...

I went up Heart River\(^2\) about two weeks ago with Eckelson.

I wish you would order me another Maynard improved like

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1 "Burleigh" - another name for the river crossing - later Bismarck, N.D.
2 Heart River - tributary to the Missouri entering at Bismarck from the West.
the one I have, and plenty of cartridges. You can send it to Brainerd\(^1\) where I will get it attended to. I want a light gun to carry on horseback and it should have a sling.

Did you see the papers that Gen. Spaulding had been presented with a fine watch by the engineers of the Minn. Div.? He was, I understand, much pleased with this testimonial of esteem. It cost over $500.

Give best love to all.

Ever your affectionate son,

P. S.

Col. Scully is at Ft. Rice. I saw him only a few days since. He reports you all well in Washington when he was there. Young Chamberlain sends me word he has one of the finest ponies in Texas which he is prepared to send me.

On the prairie between
Missouri River and Coteaus
May 30, 1872

My dear Mother:

I received by our new mail carrier letters as late as May 15th from you and Father\(^2\). I am sorry you cannot get

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\(^1\) Brainerd - The Mississippi River Crossing.
\(^2\) This marvel of speed in the transmission of a letter from Washington, D. C. aptly illustrates the difficulty of transportation at the time.
my letters more regularly. Until now we have had no regular mail, and have had to wait for occasional opportunities to send letters. We will hereafter have a regular mail carrier once every ten days and I hope you will get word from me regularly.

I am glad to hear you are all so well and only wish I could look in on you for a visit of a month or two. The season here is advancing. The trees have just leaved out and the grass is bright and green as a velvet cloth.

There are many antelope in the country and we shoot at them every day with very little success as far as getting any is concerned.

We are now running a preliminary line through to the end of my residency, and I hope to get it done in a few days. No contractors have arrived here yet but they are coming. I am driven very much and as I rarely get to bed before 12 P. M. and rise at 5:15 A. M. often feel sleepy and tired when I get up.

The responsibilities of my position are very great and I have but a very small and poorly equipped party so that it makes it very difficult to get along with credit and I sometimes fear I may be doing what my chief Engineers will not approve of when they come to see my work. However I do the best I can and trust to that to make peace and if any thing should go wrong.

They are going to build a new post on the Missouri
near the R. R. Col. Scully is here and is going to build it I understand. He is a great favorite and makes himself generally liked wherever he goes.

Best of love to all in haste.

Ever your affectionate son,

Coteaus
June 5, 1872

My dear Father:

I have run my line through to the Coteaus and have sent in for supplies. Shall start back to the Missouri again as soon as I get them. Communication is so slow that I do not know now whether my line will be accepted or not. However I hope it will.

We are having lovely weather but it is fast getting warm and the mosquitoes ---- ---- ! ! ! They are voracious, unappeasable, exhaustless, and their name is legion. About seven o'clock they simultaneously rise in clouds from the ground, fall on one, and literally devour him. We build every night a smudge of buffalo chips. This takes up about an hour and then the door falls and puts a stop to the outrages of the villains.

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1 Col. Scully - Building a post on Missouri near Bismarck.
We have no great news out here. I believe that the contractors have arrived at the Missouri by this time but I do not believe they can have many men at work for men are very difficult to get at present. There are so many roads building that there is no difficulty in getting work East, and they are absurdly afraid of Indians. This keeps the company somewhat behind with its work.

I am expecting that gun you are going to send me. It will be very useful as we see plenty of antelope every day but they are shyer than they are across the Missouri and one rarely gets within two hundred yards of them. This I consider a long range particularly with the Winchester rifle or carbine one of which (a company gun) I am using...

They have now two companies or three of Infantry at the James River and the sixth Infantry is to rendezvous at Ft. Rice in a short time if they have not already arrived. Eckelson is across the Missouri and has been exploring a cut off route on Heart River to save about nine miles of road. The country is almost mountainous and I do not see any great prospect of success from the attempt to make this deviation from the Valley of the River. Mr. Skinner has a Third Residency on which we are now camped. It extends from James River west to the Coteau Gap, forty-five miles leaving me fifty-five miles to locate and construct, as well as the bridge across the Missouri.

We are living on short rations now. Bacon, apple sauce,
and bread being the staples. They do not send supplies forward as they ought somehow and Gen. R. has an idea that because he sent out several hundred pounds of pork, coffee, and flour, and sugar that we are well supplied with rations whereas the ration list provides canned fruits, butter, lard, pickles, etc. Indeed men cannot work well; when they get nothing but salt victuals they are despondent and discontented. I often feel homesick myself. I don't know how it is but now that I ought to be best pleased with my position and prospects I feel more homesick and tired of the country at times than I ever have been before. There is a worry about responsibility I suppose that causes is and perhaps the grub has also something to do with such foolish feelings...

The mail carrier arrived today but brought no letters from home.

Love to Mother and Mary and Loulie as well as the little ones.

Ever your affectionate son,
Coteaus
June 6, 1872

Dear Uncle Frank:

You will be surprised at getting a letter from me perhaps but I have heard so little from Philadelphia direct of late that I am curious to know what you are all doing, and anxious not to let myself be forgotten. I am going to enlarge my circle of correspondents too for I find this infernal country getting very irksome. No news, no society, state papers when they do come, frigid hurricanes in winter, sirocco like ditto in summer, these are the concomitants of living out here. "Mr. Lo" is also in the ascendant now it seems and is promising himself some fun this summer and I only hope he may confine his frolics on this side the Missouri to stealing horses.

We have had lovely weather up to now. Every thing out here wears its spring clothes (except the engineers who are as dilapidated a set of mortals as you will see in a long time) and the trees along such of the streams as are fortunate enough to be blessed with a few specimens of the Genus Arbor wear their richest green. A few weeks however will parch and sear this foliage and instead of the sea of verdure which the prairies now afford,

1 "Mr. Lo" - A name for the Indians - Like "Tommy" used to mean the British soldiers.
there will be the monotonous brown undulations so tiresome to the eye and intellect.

I have just run a line through from the Missouri sixty miles and am waiting for supplies from the nearest station at James River thirty-seven miles distant. Our fare until the wagons get back is and has been for several days "bread and apple sauce" a fare which long usage has accustomed us to endure without much repining.

Speaking of James River, I sent a sketch of our camp at this place to Frank Leslies Ill. newspaper a few days ago and if they should publish it I would be glad to have a copy sent me. If you will do this please do up the paper in such a way that it cannot be seen what paper it is as illustrated papers are in great demand out here and are generally gobbled before reaching their destination.

We see plenty of antelope every day when at work but rarely get one as they are very shy. Come out and pay me a visit this summer and I will give you a taste. I am stationed at the Missouri River and have sixty miles of R. R. to construct from there East. This will keep me there probably all the fall so you will have plenty of time to make up your mind to come.

I do not know how you would like sleeping on the

---

1 He was now engaged in running the line East from the Missouri River crossing towards James River.
ground or roughing it in tents but I dare say you could
stand it for a while, without injuring your constitution...
Your affectionate nephew,

June 14, 1872

My dear Father and Mother:

I received two letters from you today. We have just had a visit from Gen. Rosser who took me with him down to the Crossing. The town there is to be called "Edwinton"¹ and is now partially laid out. I invested $25 to secure one lot #12 of Block 26 on Main Street so you see I am now a landholder. Only two blocks are to be sold at present and most of those offered have been bought up already. The success of the venture depends upon the R. R. crossing at the place selected for the town and I think it will have to go there. I have ventured $25 and if the railroad goes elsewhere I shall not pay up the residue of the $100 asked for the lot. We have lovely weather and the country thanks to the cooling showers which have refreshed us is still green and beautiful.

The contractors have arrived and are going to work with a will. They have a hundred fifty teams and a hundred men at present but expect reenforcements.

¹ Edwinton — another name for the crossing —now Bismarck, N.D.
My line is not yet entirely located, not a fifth even being ready for construction and most of it undecided even where it shall go.

I am sorry to hear in each letter I receive that you are not getting my letters. I got all of yours I think. I got two from Ft. Rice lately. As we have a regular mail now I think you had better address to Care Gen. Rosser at Fargo, Dakota, (N. P. R. R.)...

Ever your affectionate son,

In Camp 40 miles east of the Missouri
July 2, 1872

My dear Father:

I seize a few moments before dinner to write and let you know that I am well and very busy. Yours and Mother's letters all complain of my not writing but I seldom let a week pass without giving some account of myself. I am very busy.

The contractors are at work on the west end of my line while I am busy locating eastward. I have the grandest set of scoundrels in the shape of contractors that ever were seen and they are giving me a great deal of trouble. They
refuse to finish their work neatly and that alone will tend to get me into trouble with my superior officers. I shall try and get their contract forfeited.

Hon. Dr. Burleigh formerly M. C. from Dakota is their head man of the contract but is managed by a scamp named Husbis who he pays to "boss the job" as Burleigh himself does not know the first thing about railroads.

I was summoned to James River the other day to meet Gen. Rosser. I left the Missouri at 3 A. M. and drove twenty miles by 6:30 A. M. I staid in camp till nine o'clock at night and then with another team drove about sixty miles by ten o'clock next morning. This brought me within thirty miles of James River so that on a pony I managed after dinner to get in in good season. My thirty mile ride was through a continued and violent rain and hail storm accompanied by terrific thunder and lightning. The lightning was so vivid and frequent that I left the road in places to avoid hills where I thought it dangerous to be, and you may imagine how uncomfortable I felt when once a streak of lightning fell not five hundred feet from me and in a deep hollow too, surrounded by hills. The dust and stones flew up in a cloud where the bolt fell and made me think there was no security to be found anywhere. I sent a messenger to James River some time ago who rode a hundred twenty miles in one day and rode my pony over seventy-five miles between nine in the morning and seven in the evening, without
injuring the pony. Frank Eastman is with me now as topographer. He finds the office does not agree with his health and we are both glad to be together again. He is looking very well. I traded him my pony and $100 for a $175 watch he bought and felt too poor to keep. It is a very fine one.

In haste,

Coteau Springs, 30 miles from James River, west
July 11, 1872
My dear Father:

I have just come here from the west with Gen. Rosser, Mr. Roberts and Mr. Linsley our Chief and Assistant Chief Engineers. They arrived at my camp day before yesterday evening and took me with them to the Missouri. They looked over my location on the way west and to my great relief found it satisfactory. Col. Roberts is a dear old gentleman and Gen. Rosser would be if he did not muddle things up so awfully. He hasn't the slightest method in him, and rushes engineers off their own work into somebody elses and makes confusion all the time. Mr. Linsley, a talented man but a perfect specimen of the hard, cold, calculating

1 Coteau Springs - now Crystal Springs, N. D.
Yankee, is the pet object of all connected with the road and we are hoping he will soon be shipped. Our trip was on the whole a pleasant one. Mr. Roberts was much pleased with the country and agreeably disappointed. He will probably make a report that will give Mr. Jay Cooke great satisfaction. We lived on the N. P. R. R. steamer while at the river and went up and down stream for several miles sounding and making preparations for locating the crossing. This is now I think pretty nearly decided on. The river is lovely just now and the abundant rain we have had is keeping everything green and bright. The game on the west side of the Missouri is very abundant. Antelope, elk and deer both black-tailed and white-tailed can be found with very little hunting. I wish you could come out now at this season and have a little real good hunting.

There is now almost no game this side the river and I have scarcely seen an antelope. There is a hunter at the military camp on the west side of the river who takes orders to kill any number of antelope or deer from one to ten or twelve a day and gets them invariably. He makes sometimes $400 a month—a better business than engineering.

I am anxious to see my new Remington and try it. Gen. Rosser had the check to propose to me to lend it to him to use on the Yellowstone trip. I told him I would very

1 - Jay Cooke - This banker was naturally enough keeping a close watch on the progress of construction of the line.
willingly dispose of it to him, and that I would order another. But he did not want to buy a new gun, he preferred borrowing. He wanted to borrow my shotgun too and you know yourself how battered a gun gets on such a trip.

By the way — did not tell you that another expedition is about to leave the Missouri River, July 20, to go through to the Yellowstone. Gen. Rosser and Mr. Linsley are both going and it will be a grand affair. Gen. Rosser is taking all my best men, tents, horses, instruments etc. away from me to send out there. It is a perfect shame, I think, to serve me so yet he treats all the other engineers the same. He goes on the "rob Peter to pay Paul" principle. No engineering party here has any outfit. They have just what they can get from each other and patch up the best they can.

It is the real southern shiftless management, hurry-scurry, hop along on one leg method of doing things. It makes me almost sick at times, and yet my prospects are so good that I don't like to leave the road, though I do not think that as an engineer I am benefiting myself very much. If they do not give me the "Bridge across the Missouri" to look after, I believe I shall leave soon or else go to contracting. Mr. Roberts is a fine old gentleman and I wish you could meet him. He is acting general and kind, a great contrast to Mr. Linsley's bull headedness.

1 The expedition of 1872 - see introduction.
July 19, 1872

My dear Mother:

I write in haste this morning to let you know I am still well. The Yellowstone Expedition teams are expected this morning and will go most immediately. I am very busy and merely have time to send love and let you know I am still well. I had a delightful letter from Loulie full of news and gossip. I hope she may enjoy her visit to Staten Island. How I would like to help Father fit up the lathe.

Love to all.

Ever your affectionate son,

Edwinton, Dakota

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TELEGRAM

Edwinton, Dakota
Aug. 26, 1872

To Gen. M. C. Meigs
Quarter Master General
Washington, D. C.

Assisted in laying out Fort McKeen\(^2\) day before yesterday. All well.

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1 Edwinton - Bismarck, N. D.

2 Fort McKeen - this was the Govt. fort laid out by Meigs near Bismarck. The name was later changed to Fort A. Lincoln. (Heidman, *Historical Register & Dictionary of the U.S. Army*, Vol. II p. 521.)

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Fargo, Dakota
Aug. 31, 1872

My dear Father:

I write in great haste and late at night to be ready for the mail carrier. No news. We had a frost yesterday morning. Track laying goes on at the rate of two miles a day. We expect the cars up the Missouri early in November.

Best love. In haste.

Your son,

Fargo, Dakota
Sept. 17, 1872

My dear Mother:

I seize a few minutes after all have gone to bed but myself to write that I am well. Our work is going on rapidly and the track will I think undoubtedly reach here this fall. We are beginning to have a foretaste of the winter in the frosty mornings which make a warm bed feel so comfortable.

Everything is now so dry that the dust is if possible as bad as it used to be in Washington during war times. My drafting table is today covered with dust almost an

1 Fargo, N. D. - Eastern division point and at this time head-quarters of the construction.
eighth of an inch thick and everything feels grimy and gritty. The water in the river has fallen and left great sandbars exposed from which the dust flies in great clouds that fill the air and darken the sky like a fog. I hardly think that New Mexico or Arizona can rival Edwinton in dustiness at this season...

Gen. Sheridan passed through here with a large 1 a few days since. Gen. Rucker was here with him and inquired for me but I did not see him being out on line.

Ever your affectionate son,

Fargo, Dakota
Oct. 1, 1872

My dear Mother:

I received your pleasant letter a few days ago and it gives me the assurance that you are all well...

We are having lovely weather though old Boreas gave us a bitter foretaste of what is in preparation for us next winter, a few days since.

I drove forty miles in an open wagon in the teeth of the storm of rain and sometimes a little snow with a fifty mile an hour wind.

1 Blanks—probably means troop or train— for the protection and provisions of the Missouri expedition.
I have a nice office now. It is nearly finished. The walls are double and the space between filled with sawdust. I have a telegraph office and a powerful battery arranged on shelves high up in rows. The operator, a fellow named Collins is a pleasant companion and has taught me to telegraph quite well. I send nearly all my own telegrams now and have a great many. We use the telegraph a great deal and often Col. Gaw the acting Div. Engineer comes into his office at Fargo, two hundred miles away, and asks questions which I hear immediately at Edwinton. The telegraph is certainly the most wonderful invention of the age.

I went down to the end of track a few days ago and saw the locomotives now about eighty miles from here. I heard a good deal of news, among other things that the report was in circulation that all the engineers were to be discharged this winter as the company did not intend making any more winter surveys. This will suit me well enough.

The New President, Mr. Cars, is making a clean sweep, cutting down pay and discharging employees. I think that the faction is about played out on this road and the Jay Cooke are going to run it to suit themselves. There seems to be a sort of crisis in the affairs of the R.R. and there are rumors as there were last year about this time that the road will go no further than the Missouri for some time to come.1

1 An interesting sidelight on the activities of the East.
It is past 12 P. M. and I must close. Do not think because I do not write oftener that I am forgetful. I am in such a bustle all the time that I do not have many leisure moments.

Love to all.

Ever your affectionate son,

Bismarck

Oct. 19, 1872

My dear Father:

I have not written for one or two mails. I have been quite busy and I do not like to write a mere note. I feel constrained to do so today however as time is short and I must let you know that I am getting on well. The track will reach my Residency in a day or two at most.

I fear the N. P. R. is in a tight fix. It is said that money does not come in rapidly enough now to carry on the work and we have not been paid off for August yet. Gen. Rosser telegraphs me however that the money has been received and will be forwarded at once. The company is straightened but I have no real fears for its financial stability.

1 Bismarck - The first letter to call the crossing Bismarck.
We are having lovely weather.

Part of the Yellowstone Expedition has returned all in good health and spirits. Half has gone back for a three weeks trip up Heart River. I fear that the line of this year is a failure. The profile is simply impracticable. Gen. Rosser is of opinion that the line of last year will have to be built on though not so short by some miles.

We have most lovely weather. The air is soft and hazy, a perfect Indian Summer.

Gen. Rosser offers me employment this winter. The Engineer Corps generally is to be discharged. Everything here will be closed up, no trains will run till the spring. They are anxious to reduce expenditures evidently...

Ever your affectionate son,

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TELEGRAM

To Gen. Meigs

Meigs returned to Fargo yesterday.

Brainerd, Minn.

Dec. 23, 1872
My dear Mother:

I have not written for some time but my telegram of yesterday or day before has by this time informed you that I am well. I have been out to the end of the track again and returned, a trip in sleighs of three hundred fifty miles. I had two teams, a rodman, cook and teamsters and plenty of blankets and provisions but it was as you may suppose a cool trip. We slept at night at the little abandoned telegraph stations along the road and pitched tents for the horses. We had many days when the thermometer was twenty degrees below zero and the wind blowing a gale at that. One night we spread our blankets in a box car very open to the winds but as the thermometer was not much below zero we thought it quite mild and went to bed very comfortably. Next morning when we woke the wind was blowing hard and the thermometer read twenty-six below zero.

We are still having a continuance of the cold snap and for over a week the mercury has not been above zero. Generally the mercury has been frozen up in the morning and at ten o'clock the other day the thermometer standing in the full sunlight in a warm place marked twenty-six below.

1 The last letter in the series of 1872 - as he says in his plan he returned to Washington, D. C. and stayed there until the next spring when he went again to take part in the survey.
A day or two ago at eight o'clock three different thermometers (spirit) indicated fifty-one below. What do you think of that?

Strange as it must seem to you it was quite possible on that morning to stand bareheaded and handed out of doors and no one seemed aware that it was particularly cold. I think one suffers much less out here provided he keeps indoors when it blows, than you do in Washington. I am sure you would like the clear, bracing air...

We are now getting up a final estimate of the work done on this division and expect to get through by the last of the month. We will all be paid off then and I shall be out of a job and off for home. I expect to take a small hunt on the way however over in Wisconsin and hope to kill a moose to balance Father's buffalo and bring the hide home with me. Still I may be detained a few days after January 1.

The N. P. R. R. seems to be hard up. They pay all employees in full but the money for their contractors comes in but slowly. They have so disbanded the fine engineer corps we had and were so proud of that I scarcely care whether I stay or go. I feel though that I ought to make all the money I can now as it is improbable that I could get another job this winter and if times are dull perhaps not even next spring. None of the engineers who have left the road have obtained permanent employment so I ought to be well satisfied at being kept so long.
The new R. R. Hotel here is very comfortable and much better than the one at Brainerd in every respect.

With best love to all.

Ever your affectionate son,

St. Paul, Minn.
March 30, 1875

Written on his way back to N. Dakota after a visit at his home during the winter.

St. Paul, Minn.
March 31, 1875

Devoted entirely to a discussion of a type of cartridges invented by his father which he was trying to promote.

St. Paul, Minn.
Apr. 6, 1875

Dear Father:

I am to start up the road tomorrow. I have been waiting here for just a week now, and as Gen. Rosser goes
up on Monday I shall go to Fargo with him and prepare to cross over to the Missouri River.

The weather is very mild here and all the streets afloat with mud after the good old style of Washington during the war. It is astonishing to see how many people are out of employment. Every other man one meets seems to be "loafing" as they term it, and applications for work on the Engineer force of the N. P. R. R. pour in incessantly. Gen. Rosser has already about a thousand letters asking for positions all the way from Resident Engineer to axeman, and is besieged with persons anxious to get the work. About half of this northern population seems to hibernate during the six winter months and emerge in the spring like other hibernating animals hungry and poor after their long inactivity.

Real estate investments seem very profitable here and I understand from business men, that 25-30% profit yearly is about what is considered the usual advance. Our lots in Edwinton are going to be worth something. Gen. Rosser was out there a short time ago and reports great activity about the crossing. He sold two lots while he was there for $900 cash which he gave $250 for last summer. My best lot is on the main street and one of the best in town and I hold it at $500. The R. R. being diverted into the town will make a great difference in the sale of the lots and I expect to see a flourishing colony there before long.
Eckelson is here and Stevens, Assistant Engineer, who was with me last summer, is going out again and will complete his part of the work unfinished when the track stopped last November.

In Brainerd the N. P. offices seem in somewhat of a turmoil. I think Mr. Meade is going in for a new deal all round and dismissals and resignations are the order of the day at present.

The present programme is for me to go out and finish up the Fourth Residency. This will be finished about May 15, after which I am to take a party and locate the line from Missouri River west to the Little Missouri, about a hundred miles. I shall have a good escort.

Eckelson is to take an exploring party and proceed up the Yellowstone from Glendives Creek where our line came out last year, as far as Pompeys Pillar, the point reached by the N. P. engineers in 1872 when they were driven back to Montana. Returning, Eckelson is to explore a route down the Mussel Shell River some distance and then across to the Yellowstone. My party will be provisioned for three months and Eckelson's for five...

Fred Grant's appointment to Gen. Sheridan's staff seems to be making a great noise and creating a good deal of disgust. In the army it is certainly not popular.

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1 Fourth Residency - the territory between James River and Missouri River in which he had been working in 1872.
Mrs. Scott Siddons read here last night and I went to hear her. She appears to me to have no genius but a good deal of attractive "vigor" and a person and face which would insure her a welcome on almost any stage.

I will write again from Fargo. Best love.

Ever your affectionate son,

Edwinton
Apr. 27, 1873

Dear Mother:

The mails have been interrupted for some time and I have been unable to send you any letters. I write now though as I am going to send a team through to Fargo tomorrow morning.

We had a toilsome trip of it out here. The snow had melted and all the sloughs were full. In some places we had to wade swift streams and at others we were obliged to shovel a way through drifts of snow sometimes as much as seven or eight feet deep. Our progress was consequently quite slow. At the Sheyenne ¹ we found a rapid and deep stream and as the road bridge was swept away I got a flat car, and in three trips brought horses and all over the

¹ Sheyenne R. - In N. Dakota - the Northern Pacific line crosses it now at Valley City, North Dakota.
railroad bridge. We used to run the car from the west to the east side empty and up a steep grade, where after loading it would run down and across the bridge by its own weight. The day after we got across there came up a terrible snow storm which kept us in camp three days in all.

At Jamestown\(^1\) we got some more provisions and proceeded without further difficulty excepting one deep stream we had to ford with all our baggage supported above the wagon boxes into which the water poured.

I am now running a new line here and the graders are expected every day.

The weather is very disagreeable and cold. A north-east wind has been blowing for three days and it penetrates to the bone. We are all unaccustomed now to the cold weather and I suppose that is the reason we feel it so much...

I find pretty much the same set of officers as when I left last fall. They have had a fearful winter here and suffered a good deal. The Bottoms along the Missouri were flooded in some places six feet deep and many settlers were obliged to get on the roofs of their houses to prevent drowning. The R. R. Company had a steamboat here which the ice carried away and came very near crushing. It would have been lost had it not been for some men who boarded her and at the risk of their lives succeeded after ten or fifteen

\(^1\) Jamestown - The first mention of this city by this name rather than as James River.
days struggle in tying her up to the bank...

There have as yet no troops arrived for the Expedition\textsuperscript{1} but there are boats on their way up the river which will bring us news.

Give much love to all and write soon to

Your affectionate son,

Edwinton, D\textsuperscript{ak}ota

Apr. 29, 1875

My dear Mother:

I received today by a three weeks delayed mail no less than three letters from you, two from Father and one from Minnie Macomb. I find that we just got out here in time. The country west of Red River\textsuperscript{2} is all under water. Moorehead\textsuperscript{3} on the S. E. side of the river has had three feet of water in its streets and the sheet of water extended back some ten to fifteen miles. At Fargo which was out of water the Hotel was crammed with refugees to the number, it is reported, of over two hundred persons,—no small proportion of the population of that part of the country. The

\footnotesize{1 The Expedition — The 1875 Expedition to the Yellowstone.}
\footnotesize{2 Red River — along the eastern boundary of N. D\textsuperscript{ak}ota.}
\footnotesize{3 Moorehead — about ten miles east of Fargo, N. D\textsuperscript{ak}ota.}
trains on the Minnesota side were delayed some three or four days by the freshet but no great damage was done that I know of.

Everything is quiet here though we expect fifty teams and seventy-five men tomorrow to go to work grading...

No more news of the Expedition, but I suppose it will get off sometime in June.

In haste.

Ever your affectionate son,

End of Track
May 11, 1873

My dear Father:

I am now inhabiting a car at end of track which is tonight thirty-three miles from the river. I have not written for a week because I spent last Sunday on the company steamer. This steamer was carried away by the ice last spring and landed thirty-five miles down the river. I was ordered to go down and take charge of her. I found her wheel broken and sent men to repair it, hired a pilot and engineer and started for Edwinton. We got onto an infernal

End of Track - Thirty miles from the Missouri would place it near the present Driscoll, N. Dakota. Of course the end of the track changed every day, progressing towards the Missouri.
bar in the river and lay there two days. We finally got off and steamed up the river. We got into another bad place, smashed the wheel and drifted helplessly against the bank where we succeeded in securing the boat after a struggle. She lies there now and we are to make a final effort to bring her to Edwinton day after tomorrow. I played captain during the voyage but as our crew was small, I played also longshoreman and engineer.

Mr. Meade went with me to the river yesterday and returned today. He is a capital man to be with and we all like him much...

Love to all.

Your affectionate son,

End of Track
May 17, 1873

My dear Loulie:

Here I am again at end of track. The rain is pouring and no work going on, - in fact a dull day - and as I feel as if one of your "newsy" letters would be about the most acceptable thing any one could present me with, I take this opportunity to provide for some future contingency by writing you a letter in hopes you will answer it by return mail.

The track is being laid rapidly towards the Missouri;
we are now only twenty-five miles from it and every good day brings us from one to two and a half miles nearer.

I have a car fitted up something like a "palace car" only not so handsome. The upper berths fold up in the day time, and the lower ones being arranged along the sides of the car lengthwise, we have a good deal of room. The telegraph operator has a table at one end of the "sitting room" and the kitchen is at the other end of the car leaving a sanctum between used as an office and dining room by day, and at night as Gen. Rosser's and my own dormitory. My duty at present is superintending the laying of track and putting up of the bridges, as well as the construction of a new grade down to the Landing at Edwinton or "Bismarck" as they have resolved to call the place where the J.P.R.R. will cross the Missouri. There are about two hundred men now at work between here and the river and we hope to get all finished by June 1.

I have had some quite novel experience lately in the steamboat line and you will perhaps laugh at the idea of my commanding and steering one of the largest steamers on the Missouri, but I did and did it successfully too, in a place where a licensed pilot had failed.

The Company steamer was carried off by the flood of ice which poured down the river early in the spring. I

1 Bismarck - the first mention of the final name for the crossing-place.
was instructed on my arrival at the Missouri to get possession of her and do what I thought best in the case. Her wheel had been smashed by the ice though she was tied up to the bank in a safe place so I sent carpenters on board to repair it. At the same time, I heard that Indians had been seen prowling around her and a large war party being reported on the west bank of the river where she lay, I sent a messenger to one of the forts near there and had a guard of soldiers put on board. When her wheel was ready I took an engineer, pilot and fireman down in a small boat to where she lay forty miles below Edwinton and we started up to town.

It was moonlight the evening we started and contrary to my better judgment I yielded to the pilot who said it was perfectly safe to run on such a night and in a half hour or so had the satisfaction of being hard aground on a sandbar in the middle of the river. All the next day we sparred and swung about to no purpose and I completely wore my hands out pulling and hauling at Manila ropes besides getting covered with mud and dirt. Towards evening the pilot gave the job up and started for town saying if we would send for him when we got her off he would come down again. That afternoon a steamer passed up the river and we borrowed a cable of him. This we made fast to our boat and to the shore and then put a heavy strain on it with the capstan. It was dark before we got all this done but
next morning early we put out one of the spars gave a push and to our intense delight the steamer sailed off into deep water. A messenger was dispatched to Edwinton and at four o'clock the pilot came down, we got up steam and resumed our journey. It was again a moonlight night and the pilot wished again to try a moonlight voyage. I had had enough of that however so we tied up to the bank for the night at a safe place. Next morning we cut some wood and got up steam and all went well till we got within about ten miles of Edwinton. As we passed the sawmill we blew our whistle and brought everybody out but "pride goeth before a fall" and so it happened to us.

You will see by the map that the river is divided into three channels A, B and C. Now no pilot on the Missouri can be sure of the right channel in such a place without trying them all, partly because the channels shift sometimes inside of twenty-four hours and partly because the water is so rapid and so muddy that no one can tell without sounding how deep it is. In the present case our pilot made a mistake and took channel A which appeared to have plenty of water in it but which was narrow, crooked and obstructed by sandbars.

We had not got half way up when the steamer grounded and as her stern swung downstream with the current the wheel struck the bank and was in an instant smashed all to pieces. The boat began then to drift helplessly down stream. At last we neared the bank and just at the right moment we
launched a boat, succeeded in landing a cable and secured her from drifting further. Her wheel disabled, our voyage was at an end. So we landed all the crew but carpenter, blacksmith and engineer and left them to repair damages.

Before the wheel was ready again my pilot went down to Sioux City and as there was no one left at Edwinton who knew anything about steering a steamboat, I came to the conclusion that as the boat must be brought up to town, it would be more satisfactory to myself to manage her myself even if I got her into difficulty again.

This time I took no crew down but the men in my engineering party and a steam engineer. We found the wheel not quite ready but started fires under the boiler and by two o'clock had steam up and wheel ready to start.

As I had never steered anything bigger than a sailboat before I took my place at the wheel in the pilot house in some little doubt as to how she would act, and did not feel quite sure I could get her away from the bank against which she lay. I ordered the lines cast loose however, rang the bell for the engines to start and a slight wind helped us so we were soon floating in mid channel. Away we went up stream sounding occasionally to keep in the deep water and I began to feel more confident.

We had not gone far before I found that there was no great amount of intellect required to manage even a large steamboat as she obeys the same laws as the smallest sail-
boat, only one rows with a huge engine, and steers with a wheel. We had to land and take on more wood. "All ready with that line," I shout as hourly as I can. "Aye, aye, Sir" -- jingle goes the bell the engine stops and we come slowly up to the bank. The men jump off and fasten a cable round a large tree, I start the engines again for a moment to keep the boat from swinging down stream too rapidly and in another she is lying quietly at the woodyard. While the men are carrying the wood on board I walk over into the woods and get a glass of native wine manufactured on the Island. Capt. Clarke who commands the Post at Edwinton accompanies me and after a half hour or so we go on board again and prepare to start. I throw the wheel over, ring the bell to back the engine, cast off the lines and we back rapidly out into the stream. Again I ring and the engine stops. Another ring and we begin sailing up stream again, through channel B which we had sounded on our way down. Imagine my "phelinx" when the steamer "stubs her toe" as it is called and quivers from stem to stern as we strike a sandbar. I back the engines however and she swings off to my great relief and we sail along without further mishap.

I had loaded one of the cannon on board and as we pass Ft. McKeaⁿ¹ we shoot it off and hoist the stars and stripes.

¹ Ft. McKeaⁿ - This was the govt. fort laid out in 187? by Meigs near Bismarck. The name was later changed to Fort A. Lincoln. (Heilman, Historical Register & Dictionary of the U. & Army, Vol. II, p. 1121

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Then one of the boys who is instructed to blow a salute with the whistle pulls so hard that we can't stop it and blow off so much steam that we can barely make headway against the current. This amuses the crowd on the bank very much and they make many kind offers of throwing us a line to tow us up etc. but we throw wood into the furnace and at last tie up safely to the bank at the Edwinton Landing. "Thus Endeth the Cruise of the Ida Stockdale."

Ever your affectionate brother,

Bismarck, Dakota
May 26, 1873

My dear Mother:

I wrote quite a long letter to Loulie last week and nothing of interest has occurred since that I can recollect so my letter this evening will necessarily be a short one.

We have had a week of continued down-pouring rain and everything has been sopping wet. The laying of track has been much interrupted but I think June 1 we will certainly hear the sound of the locomotive whistle in the town.

We have had within two days a change for the better as far as the weather is concerned and it bids fair to continue pleasant. The trees are beginning to look quite green and the grass must be four or five inches tall already.
The Yellowstone Expedition is fitting out, but I do not know that I shall go with it.

Gen. Rosser is at end of track pushing it along.

Please write and tell me all the news. I will cut this stupid letter short. It is late and I must to bed.

Best love to all in haste.

Ever your affectionate son,

2½ miles east
of Bismarck
June 3, 1873

Dear Father:

I have only a few minutes in which to write you. We are now about two and a half miles from Bismarck and expect to be in tonight.

The weather is beautiful and all going on well. Preparations for the Yellowstone Expedition are still in full swing. As at present organizing the Engineers will be:

M. Meigs ————Chief of Party.
Gen. Rosser expects to go as far as the Yellowstone and then send the party on up to Pompey's Pillar.

Love to all.

Ever your affectionate son,
Edwinton, Dakota
June 16, 1873

My dear Father and Mother:

I am sitting in front of my tent packing up for the Yellowstone Expedition. We have four companies going from here and twenty-five men of the seventh Cavalry. We will join the main expedition about fifty miles out.¹

It is just half past five A. M. and the sun shines slantingly over the distant woods.

We are well fitted for the trip which I think will be a nice one.

I have not time to write more but will send letters when we are some days march out. Do not feel anxious if you fail to hear from me for some weeks or even months. We cannot tell how long we may be without communication with the outside world.

With fondest and best love to all.

Ever your affectionate son,

Dakota
June 18, 1873

My dear Mother:

We are camped about twelve miles from the Missouri.

¹ See introduction for details in the military escort.
We have now been at work three days. Our camp is the same that we made two years ago, our first on Heart River.

We had a little so called Indian skirmish yesterday. We came up one side of the hill and the Indians the other. We met on top and the Indians skidaddled. They are a miserable set and one feels almost ashamed to attach any importance to their enmity.¹ The weather is delightful and though sometimes very warm the air is dry and bracing.

We have today six companies of soldiers and are to meet the main outfit about thirty miles from here and proceed in company to the Yellowstone. All are in good spirits and I predict a successful and pleasant trip.

I have my gun along but have not used it yet. I wanted it very much the morning we met the Indians. I think I could have dropped one of them. After the Indians ran away from us the Red Scouts² got after them and drove them quite off.

I write in haste. Love to all.

Ever your affectionate son,

¹ See introduction for details of this encounter with the Indians.

² Indians in the service of the government and employed as scouts for larger bodies of white soldiers.
In camp Mud Creek
June 28, 1873

My dear Father:

We have only made about fifty or sixty miles of line and are delayed here by some broken wagons. Custer's Cavalry joined us last night. They present a fine appearance on the march and the seven hundred looks like ten thousand.

We had a terrific hail storm three days since that came near costing many lives and putting a stop to the whole expedition. We were returning from work in the evening when a thunderstorm came up and Eckelson and myself who were together joined the cavalry escort. The storm became more violent still and it grew as dark almost as night. The hail began to fall in larger and larger drops and began to sting considerably. The horses got very restive under their pelting and some of them unmanagable. Suddenly three vivid flashes of lightning struck the earth near us and the most terrific storm I ever witnessed fell upon us. One of the soldiers who probably had witnessed something of the kind before cried out, "A hail storm on the prairies! Go for the timber like

1 Mud Creek - a tributary to the Heart River joining it near parall 102. The camp was probably near the present town of Glenullen, North Dakota.

2 Custer's Cavalry - for further information see introduction.
And in an instant the whole troop was going down hill at a full run. The hail now had attained the size of large marbles and every one that struck raised a lump on the flesh. Many of us were thrown and some who succeeded in stopping their horses dismounted and tried to hold them. I had succeeded in getting off my horse and was struggling with him for he was frantic with pain when two riderless steeds rushed by and with one jerk he threw me headlong on the ground, wrenched the bridle from me and disappeared in the dense mist. The pelting of the stones was terrible and I rushed for shelter towards a little patch of brush and crawled into it to find two cavalry soldiers already there. But by setting my hat high up on my head I protected it from all but the sideling stones and shielded my body by stretching my coat over my arm and holding that up high. I got some severe welts on the elbow though that left black and blue marks. You may judge of the force of the falling stones when I tell you that hats of felt were torn literally to rags and some stones even penetrated the brim of thick straw hats. A thick silver cup which was exposed to the storm was indented as if by falling on the floor. I think the heavy hail must have lasted ten minutes. Eckelson was exposed to it bare headed as he lost his hat and held on to his horse during most of the storm but had finally to let him go. Eck's head was completely covered with lumps as big as the end of ones finger, and his back
and shoulders looked as if some one had been beating him with a tack hammer.

Our train was on the march when the storm came on and you may imagine the result. The frantic animals rushed into deep ravines and over the rocks smashing army wagons almost to toothpicks and breaking from their harness scattered themselves over the face of the country. We managed to collect all the animals though and have patched up enough wagons to take us on.

Gen. Stanley with the main outfit escaped the storm or I think the Yellowstone Expedition would have had to return...

I must close as it has stopped raining and am to take the party out today.

Best love to all.

Ever your affectionate son,

Camp on the Yellowstone ¹
35 miles N. of Powder R.

July 22, 1873

My dear Father and Mother:

We have been here now some five or six days and as we

¹ This camp must have been near the present town of Hoyt, Montana. This is the first letter sent by Meigs from Montana.
will soon resume our march. I think it time I let you know how we are progressing with our work.

We have had our march so far unmolested and I think it probable it will continue so. We have not seen much game but antelope, but have killed a great many of these...

Our new line is an improvement on that of 1871 as it cuts off nearly twenty miles of distance and goes I think through a much better country.

The weather has been delightful though our progress some three weeks ago was much delayed by the rains which made this so called dry country a sea of liquid mud.

Eckelson and I were sent some time since with a squadron of cavalry to explore ahead of our line about forty miles. We camped or bivouacked one night and had some for supper. They were really quite nice. On this trip I came near killing an immense elk, the largest I ever saw. Eck and I were riding at the head of the Cavalry column when I stopped a moment to arrange my saddle. When I remounted and as I was approaching the head of the column, I saw the officers and men wheel their horses right and left and five or six of them dashed over the hill. I at first supposed it was Indians but on getting closer, saw a huge animal lumbering off at a slow or apparently slow gallop and it looked so big I thought it must be a wild Texas ox. On getting up to where Eckelson was (he carried no arms) he told me it was an elk and I started in pursuit but my
horse had so much baggage on him that I was afraid if I ran him hard I might have to walk home so I gave up the pursuit. The advance of the column ran right into the animal and all were so astonished at his size and close proximity that not a shot was fired. He was pursued some distance but was too fast for the horses...

Camp near Powder River
July 25, 1873

My dear Father and Mother:

I fear I shall be unable to chronicle the events that have occurred since I last wrote with anything like minuteness. Suffice it to say we have arrived here after a long march and are now only waiting for the crossing of our clumsy train to wend our way rejoicingly southward toward our goal *Pompey's Pillar*. ¹

We have accomplished very substantial results as far as our R. R. is concerned by the discovery of a route which will shorten the distance between the Missouri and Yellowstone some twenty-two miles at least, which at the rate of $50,000 per mile makes a saving to the company of $1,100,000, no mean result of a three weeks survey. Our train delays us

¹ Pompey's Pillar - Approx. 35 miles from Billings.
very much it is so large that every small stream crossing or mudhole causes a stoppage of some two or three hours for we have to march pretty well closed up and the advance of the train has perpetually to wait for the rear whenever an obstruction occurs on the road.

Mr. Lo has been kind enough to keep himself out of sight almost entirely since our scrimmage at the Missouri River which was with some Grand River Indians who are ostensibly at peace with the white men. We have scoured the country far and near and found no signs of Indians, so I suppose they are all up the river is anywhere.

This country is so dry and the grass so poor that we find but little game of any kind. Buffalo there are none nor have been for some time, though we see an occasional black tailed deer or Rocky Mountain sheep. Gen. Rossor has secured the stuffed head of one which has somewhat the appearance of the annexed sketch.

I enclose an unfortunate sketch which I attempted of some bad land bluffs below our camp which will however assist you to some conception of the scenery. We don't find the Yellowstone the pellucid stream of 1871. It is up and riled this year and its turbid waters do like the Tiber shakes its tawny mane and boil around the snags at a speed of six or ten miles per hour. The woods on the low points are lovely. The timber is cottonwood of no great size but seems to have been planted by some landscape artist of taste and offer
destitute as they are of underbrush, the most charming
vistas in long perspective only needing the deer peace-
fully browsing, to make one think himself again on the
Nueces or Llano of Texas. The soil in the valley is here
very poor. The right bank of the river is bounded by high
bluffs of Mauvaise Terres\(^1\) which often overhang and encroach
upon the stream and rise to a height of some two hundred to
three hundred feet. These Mauvaise Terres are most indis-
cribably rough and offer to a horseman about such a maze
of fissures and impassable ravines and ridges as the Mur
de Slace at the Montauverti. I rode ahead of the train
with Gen. Rosser and a squadron of cavalry some thirty miles
and the climbing these horses did would astonish the natives.
We climbed over ridges or hog backs which it would be
supposed a mountain goat could scarcely scale and indeed
it was a risky thing for the horses, as a single misstep
would have been fatal. We rode on down to the mouth of
Glendive's Creek and found the steamer waiting for us with
provisions and forage in abundance. That was some twelve
days ago. As the country between was impassable however we
had to have every thing reshipped and brought twelve miles
up to this point where a stockade has been built and they

\(^1\) Mauvaise Terres - another term for the Bad Lands, given
by the early French explorers and translated by the English.

\(^2\) Glendive's Creek - tributary to Yellowstone, entering at
the present town of Glendive.
are going to leave two companies to guard the extra supplies for our return. The ferrying and moving of supplies has consumed much time and we are all anxious to get away though our camp here is most pleasant. Every evening we step down to the river about a hundred feet away and bathe. The weather has been intensely warm and three times a day has seemed none to often for us to enjoy the delights of swimming and cooling ourselves in the delightfully tempered water. What do you think of our having had the thermometer at a hundred three to a hundred nine degrees for four or five successive days? It is not fair to say though that the heat was comparable to what it would have been in Washington as the dry air carried off the perspiration rapidly and kept one comparatively cool.

We have a pleasant party. Eckelson you have heard me speak of before. He is a noble fellow and a most general favorite, always full of fun and high spirits, energetic and bold, the very man for such work as ours. He will command our party when Gen. Rosser leaves which the Gen. expects to do as soon as they get through with the steamer now employed ferrying.

I think we may move from here tomorrow but cannot say yet. We have about five hundred miles of line to run yet and think we can average ten miles per day. If so we will make the round trip in about fifty days. We go up the Yellowstone to Pompeys Pillar, then north to the Mussell
Shell Valley and part way by it and part across the divide back to Glendive's Creek.

We are feeding seven pounds of oats to the horses but they do well on the grass we have had so far....

We have a hunter with the outfit who kills a great deal of game. Out of thirteen Big Horn sheep he has seen, he has killed six since we struck the Yellowstone Valley, and antelope five or six per day often. There is comparatively little game about here though. It is curious the total change of the country from the east to the west side of the valley. East the bluffs crowd the river and are steep, precipitous bad lands. West the valley slopes gently upward and is intersected by small valleys abounding in springs and fringed with nice ash and cottonwood trees. There is much more gravel in this soil which allows of the water soaking in and makes the country much less dry. In spite of it all however without manure and irrigation I doubt if any of the valley about here is cultivable. We hope to strike a better country some miles above here.

We are now having delightful weather and looking forward to our trip up the river. The steamer will go with us as far as Powder River and we will live on board perhaps until we make our connection with last year's line.

But I must close in haste. I got several letters by the steamer from Ft. Buford. Best of love.

Ever your affectionate son,
My dear Father and Mother:

I think my last letter was sent from Powder River and I described our adventures up to that time pretty fully. We have two newspaper reporters with the Expedition and to them I refer you for a description of the battles etc. of the trip. As I have never seen any of either of their articles I cannot say how truthful they will prove, but I think the Tribune Reporter will write a pretty fair article. The country has much improved in appearance since leaving Powder River. The bluffs along the river instead of being precipices of clay are now picturesque masses of sandstone waterworn into the most fantastic shapes. The valley of the Yellowstone until we got within ten to fifteen miles of the Big Horn has been generally five or six miles wide; below the Big Horn though, it is not more than one and a half to two miles from bluff to bluff. Indeed during the Big Horn fight\(^1\) while we were still two or three miles from where Custer was engaged and could hear the volleys of musketry quite distinctly five or six Indians dashed up onto a peak on the opposite side of the river not more than three or four thousand feet off and yelled and brandished their guns in the most hostile manner. It was useless to

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\(^1\) See Introduction on Big Horn fight.
shoot at them though we could hear distinctly what they said. One of our scouts went down to the river bank and asked if Gen. Custer had killed their women and children the night before. The Indian said no, but that they were fighting Custer at that moment and that their warriors thought it a mere pastime to get away with our cavalry. This was rather a one-sided statement as we know now of fifteen or sixteen they had killed or wounded and we had but three. We have seen none since the Big Horn until this morning when six galloped out on the bank of the river and yelling, fired their guns into a lot of soldiers fishing, washing and swimming on our side. There was quite a scattering on our side, you may imagine, but the Indians wore perfectly safe and scampered off behind Pompey's Pillar in an instant and before anyone could shoot back. We could see them long afterward running away across the prairie on the south side of the river.¹

¹ See Introduction for further remarks on this encounter.
sides but one. The river flows between it and the high rocky left bank in a stream some five to seven hundred feet wide. Pompey's Pillar is a very remarkable landmark and well named though it resembles more some of the ruined tombs about Rome than it does Pompey's Pillar.

We are well protected against Mr. Lo on our marches and have both cavalry and infantry strung out along our line while we work every day. We all like the cavalry officers very much. There is a dash and a captivation about the cavalry service that would make it seem to me, every Infantry officer envious, and indeed the cavalry do despise the doughboys thoroughly, while the infantry hate them as cordially. The Seventh is a gallant regiment and Custer, albeit a little vain and fond of notoriety, is a Colonel to lead them to victory.

Tomorrow we strike for the Mussell Shell where we will begin our return line to Glendive's Creek. I made a small map for the Tribune Reporter which will perhaps be published in connection with his report and you will see our proposed line marked on it. We are getting on finely in the party and have averaged on the days we worked some eleven or twelve miles a great deal of the line being over very rough ground. I think the R. R. line ought to come up the Yellowstone but on the south side of the river -the

\[1\] Mussell Shell - a tributary to the Missouri flowing directly North and entering Missouri near Bervie, Mont.
north side being obstructed by steep bluffs which it will cost a great deal of money to use for R. R. purposes. Then there is any quantity of Norway pine on the hills above the river to make ties for this part of the R. R. and easy transportation for them by water to convenient points while on the Mussell Shell River the country is supposed very barren and difficult.

We begin to see more game and bands of elk of from seventy-five to a hundred fifty have been seen lately. Gen. Custer ran into a herd of seventy-five day before yesterday and killed thirteen, and yesterday I saw a buffalo killed not a quarter mile from the tent I am writing in. We expect to see buffalo on the Mussell Shell. This mail is to go by courier to Ft. Benton and then down the Missouri.

Hoping this will find you all in the best of health and spirits, my dear Mother and Father, and oceans of love to all, I remain in excellent health.

Your affectionate son,

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1 Fort Benton - a government fort on the Missouri, Approx. 40 miles down the river from Great Falls, Montana. This fort was the main trading post in the Missouri for the Rocky Mountain Region and was founded very early by the fur-traders.
Camp Thorn
Sept 6, 1875

My dear Father:

We got back here day before yesterday and I have but time to let you know that we are all well before the courier leaves that takes this to Ft. Buford. We left Gen. Stanley near the Mussell Shell River and have made a quick trip across country running our line twenty to twenty-five miles a day to this place. We have had a pleasant trip. Gen. Custer and six companies of the Seventh came with us. Gen. Stanley comes by the old trail on the Yellowstone and will not get here probably for six or eight days...

I will write more in detail by Gen. Stanley's courier. Good night, with best of love to all.

Ever your affectionate son,

Camp Thorne, Yellowstone River
Sept. 9, 1873

My dear Father:

I wrote you a hasty note a day or two since to go by courier to Ft. Buford and promised to write more fully. I cannot see, however, that I shall be able to tell you much

1 Camp Thorn - now the town of Glendive, Montana.
2 Fort Buford - was established in 1866 on the left bank of the Missouri River, five miles above the mouth of the Yellowstone River in Williams County, North Dakota. (Utah Historical Quarterly, Vol I, No. 3. July 1928 p.93)
that is not better told by the correspondent of the Tribune or Gen. Custer who are both men of the pen.

I wish you would save me such articles on the Expedition as you may find interesting and send them when opportunity offers, as I have no means of hearing what the papers say of our trip. We have had a most successful trip to this point and have solved the problem of a good practicable route up the Yellowstone.

We have met no Indians since the "Big Horn fight" and I imagine the losing game they played at that place will deter them from attempting to molest us again.

The Mussell Shell is a lovely valley from a half to three miles wide with rocky bluffs on each side crowned with pine forests. The stream itself about the size of "Rock Creek" is very crooked and fringed with fine Cottonwood forests and on the low ground an abundance of good grass can be had.

The very day we left the Yellowstone we began to get into the buffalo country and all along the Mussell Shell and on the Divide between the Big Bend and this place we continued to see herds of from twenty to a thousand almost every day...

We are to start tomorrow with ten companies for the Little Missouri where we have some work to do. We expect to get in by Oct. 5 at farthest.

Love to all.

Ever your affectionate son,
Camp Thorne
Sept. 11, 1873

My dear Father:

I enclose some sketches and a notice which you can use your own judgment about forwarding. Our camp moves today to the top of the steep hill we came down into the Yellowstone. We will be in at Ft. Lincoln Oct. 1, I think without fail.

Ever your affectionate son,