

There are at present two projects for Railroads to the Pacific before the public, in addition to the Union and Central Pacific, which has been completed, and is in operation from Omaha to Sacramento and San Francisco; which, with its numerous Eastern connections with the Atlantic sea board, affords a continuous Railway Line across the continent; and, despite the difficulties of enormous magnitude which were found in the way of its construction, and are found in the way of its running, it appears to be successful to a degree beyond the anticipations of its projectors.

The two other and to some extent rival projects, are (1) the "Northern Pacific Railroad," proposed to be built through U. States territory from Duluth, at the head of Lake Superior, to Puget Sound; and (2) the Pacific Railroad, to be built on British territory, by Companies under Dominion auspices, to connect the present Railway system of Canada with the Pacific Ocean, in the Province of British Columbia.

UNION AND CENTRAL PACIFIC (U. S. completed).

The Union and Central Pacific was constructed with extraordinary rapidity, in spite of the obstacles presented. The distance between Omaha and Sacramento is 1775 miles. The profile of this stretch shows that it passes over four main summits, namely, Sherman Summit on the Black Hills, 550 miles from Omaha, 8235 feet above the level of the sea; another on the Rocky Mountains, at Aspen Summit, 7463 feet above the sea; another at the Sierra Nevada, 105 miles from its Western terminus, 7062 feet above the sea; and from a point west of Cheyenne to Wasatch, a continuous length of 450 miles, every portion of the road is more than 6000 feet above the sea. Yet rails have been laid over these great altitudes and trains are successfully run over them.

The road was begun in 1865 and completed in 1870. The following table shows its operations and progress year by year:—

	Miles operated.	Gross Earnings.	Operating Expenses.
1865....	31 to 56	\$401,941 92	\$121,669 53
1866....	56 to 94	864,917 57	200,710 61
1867....	94 to 137	1,470,653 50	330,913 33
1868....	137 to 468	2,300,767 17	843,166 54
1869....	468 to 742	5,670,822 25	2,993,523 19
1870....	742 to 900	7,920,710 98	4,060,564 95
Total.....		\$18,629,813 39	\$8,550,543 15

In spite of the difficulties of its construction, its expense and great length, it has been profitable beyond anticipation. Its net earnings in the above six years were \$10,079,265 Interest on bonded debt 4,184,221

Surplus of net earnings over interest..... \$5,895,044

It was stated during the Debate in the Canadian House of Commons, last Session, that a waggon road must precede the construction of a long line of railroad in the wilderness. But this was not found necessary in the construction of the Union and Central Pacific. The rails were laid as the work proceeded from Omaha, and the workmen were accommodated in cars eighty feet long, fitted up with berths, dining halls, kitchens, store rooms, &c. These were pushed on as the road advanced. Fifteen hundred wood choppers and tie-getters formed the advanced guard; and on an average 1½ mile of

track was laid per day. And after the season closed, rock cuttings were made on the summits of the mountain profiles. On the Pacific coast 10,000 Chinese were employed at wages of one dollar per day. Fifteen tunnels and rock mountain side cuttings in the Sierra Nevada, presented the greatest difficulties on the whole line. Many miles of road had to be covered in with sloping roofs, made of the strongest timbers, for protection from avalanches from the mountains, which would sweep trains and everything else before them.

In addition to these formidable obstacles the American desert had to be crossed.

NORTHERN PACIFIC (U. S. projected and sections completed).

The most strenuous exertions are now being made to obtain funds for the Northern Pacific; and very sweeping statements respecting it are being very widely published. It has obtained from the Congress of the United States the largest land grant ever previously given to any railway in the world. And the firm of Jay, Cooke & Co., who are the financial agents of the Company that has undertaken to build it, are making almost incredible exertions in its behalf. This firm is well known in connection with the U. S. 7.30 Gold Loan, and the present Pacific scheme is called by the same name, the proposal being to raise on first mortgage bonds of the Northern Pacific Railway, at 7 3-10ths per cent., and payable at the end of thirty years, a sufficient sum to build the road.

In support of this scheme the most brilliant statements are made respecting the land grant of 50,000,000 acres with which the project is endowed, Glowing pamphlets have made their appearance adorned with maps setting forth the unspeakable richness of the country through which the road will pass; and, therefore, the enormous value of the lands granted to the railway.

It is also claimed that the route across the continent is much shorter by this line than by the Union and Central Pacific, and that its proposed terminus in Puget's Sound is one of the best harbours in one of the finest countries in the world.

It is still further contended in its favour that it will cross the Rocky Mountains at a much lower altitude than the Union and Central Pacific.

The following statement of distances of the Northern Pacific is taken from a report of Mr. Roberts, Civil Engineer, employed in its service, the starting point being from the head of Lake Superior:—

	Miles.	Average height above the Sea.
To Dakota Valley.....	300	1200 feet.
Yellowstone River..	300	2200 "
Along Yellowstone..	400	2600 "
Flathead Valley.....	300	3500 "
Lewis or Snake Riv.	200	3000 "
Puget Sound.....	500	400 "

Lake Superior to Puget Sound *via* Portland.... 2600 [Direct Line..... 1775]

The highest ground stated by Mr. Roberts encountered between the Missouri and Lake Superior is at the mouth of the Yellowstone River, is 2,300 feet, and "the low summit of the Rocky Mountains is but little over 5,000 feet." This, as will be seen, is considerably lower than the summits over which the