by any municipal corporation therein, and the lands of the company in the Northwest territories, until either sold or occupied, should also be free from such taxation for twenty years after the grant thereof from the crown.

Soon after the consummation of the agreement Mr. A. Onderdonk, an experienced railroad builder, became the managing contractor for the construction of that portion of the Western Division extending from Port Moody to Savona's Ferry, a distance of 212 miles. It presented greater difficulties than have ever been overcome in railway building. The Union and Central Pacific and other lines have gone over the mountains by gradual ascents, but no such way of climbing the Cascades was possible, and the wonderful undertaking of running through them, parallel with the great canyon of the Fraser, had been determined upon. For fifty-four miles, from Yale to Lytton, the river has cut through this lofty range thousands of feet below the summits. Mountain spurs of granite rock, with perpendicular faces hundreds of feet in height project at short intervals along the entire passage. Between them are deep lateral gorges, canyons and plunging cataracts. On this stretch of tunnels, rock work and bridges (see pages 364 and 365) the greater portion of Mr. Onderdonk's construction army of 7,000 men were engaged for five years. The loud roar of enormous discharges of giant powder reverberated constantly among the mountains. Many tunnels were bored, one 1,600 feet in length, and millions of tons of rock blasted and rolled with the noise of an avalanche into the rushing, boiling Fraser; workmen were suspended by ropes hundreds of feet down the perpendicular sides of the mountains to blast a foothold; supplies were packed in upon the backs of mules and horses over trails where the Indians were accustomed to use ladders, and building materials were landed upon the opposite bank of the river at an enormous expense and crossed in Indian canoes. It is estimated that portions of this work have cost $300,000 to the mile, and that the whole cost an average of $100,000 per mile. This account would neither be complete nor just were it to omit to give a large measure of credit to the Chief Engineer and General Superintendent, Mr. Edward G. Tilton, C. E., to whose energy and experience the successful completion of the enterprise was largely due. It was this gentleman who organized the working forces on this great undertaking, and who so ably superintended their operations during the first three years of construction, those being the years in which was accomplished the formidable work of building the road through the terrible canyons of the Fraser and Thompson rivers. Mr. Tilton is well know along the Pacific Coast, as he has been identified with many of our prominent public works; the N. P. R. R. and the Oregon City Locks being among the number. For several years also he was Chief Engineer of the Cuzco Railway, one of the great enterprises carried out in Peru by Henry Meiggs. After having completed the difficult sections of the Canadian Pacific in British Columbia, Mr. Tilton retired from the services of the contractors and took up his residence in Victoria. One of the greatest feats accomplished on this section was the construction of the cantilever bridge across the Fraser below the town of Lytton. (See page 363.) Besides the one across Niagara River, this is the only cantilever in America. The total length of the bridge is 530 feet, the central span being 315 feet long. The ends of the span rest upon piers of solid masonry, ninety-six feet high, and containing 6,480 cubic yards of stone. The superstructure contains 1,200,000 pounds, or 6,000 tons of cast steel and iron. The total cost was $230,000. Though the bridge is not so long as the one at Niagara, the difficulty attending its erection was much greater, owing to the fact that the site could be approached from one end only. One-half the material was sent across the river on a steel cable 1¼ inches in diameter, several pieces thus transferred weighing over 5½ tons each. In this respect the bridge stands without a parallel in the world.

At the beginning of the present year there remained only 239 miles uncompleted, consisting of that portion lying between Savona's Ferry, near Lake Kamloops and the end of the track in the Rocky Mountains. This embraced the extremely heavy work in the Gold and Selkirk ranges, where the line had been located with greater difficulty than at any other point. The pass through the Gold Mountains was discovered in 1865, by Walter Moberly, who had been sent out by the Provincial Government to search for a wagon route. He had almost despaired of success, when he one day noticed an eagle flying up one of the narrow and unpromising valleys near Lake Shuswap, and following the direction taken by the bird he discovered the only pass leading through what is otherwise an unknown wall of mountains. This he appropriately named "Eagle Pass." His effort to find a route through the steep and rugged Selkirks was unsuccessful. The Indians asserted that no pass existed, and that was the general belief in 1881, when A. B. Rogers, engineer of that division, undertook the task of finding one. It took him two years of hardship, privation and labor to earn the success that finally rewarded his efforts. He found a practicable route by the Ille-Cille-Waet on the west and Beaver and Bear creeks on the east, the only one in the range, and this is the one through which the road has just been constructed and which bears the name of the indefatigable explorer. In constructing the road in this region the Columbia River was made a base of operations as well as the two approaching ends of the track. Supplies for this purpose were brought by steamer up the Columbia, thus greatly facilitating the work of construction. The tracks were finally joined in Eagle Pass on the 7th of November, and the great railway which had cost the enormous sum of $140,000,000 was an accomplished fact.

The scenes attending the driving of the last spike were in marked contrast with the great display and parade made by President Villard when the Northern Pacific was completed two years ago. There were in attendance W. C. Van Horn, Vice-President and General Manager, and a select party, chiefly officials of the constructing and operating departments. Nearly every one