

JOHN F. STEVENS—A STUDY IN ACHIEVEMENT

A glance at the history of the world, and particularly that of the United States, during the last quarter of the nineteenth and the first quarter of the present centuries will reveal a period of intense activity. Looking at the history of our country first one notices two very significant movements: the continued railroad construction until the present network of rails to the Pacific had been completed, and the construction of the Panama Canal. The World War and what has followed it doubtless would be a third movement of sufficient import to warrant a place in this list.

Aside from the fact the Pacific terminal points of three, and in a sense four, of these railway systems are located in Washington, and that the completion of the Canal has very materially influenced Puget Sound commerce, certain incidents in the above three movements are of close and definite interest to the student of the history of the State of Washington.

Reference is made to the life and career of John F. Stevens.

A study of railroad construction in the far west can in no sense be confined to the quarter century suggested above; although the period of greatest activity was less than this same quarter century; from 1876 to 1893. The extent of the nation's realization of the need for railroad connections with the Pacific go back to 1853 when the appropriation for preliminary surveys was made. Lincoln's visit to Council Bluffs and his decision that the first line should be along the central of the three proposed routes, and the survey of the northern route under Isaac I. Stevens are facts the details of which are well known to Northwestern people. The Civil War abruptly terminated this brave start, however, and it was not until in 1867 that the first line was completed. The era of greatest expansion, then, followed this latter date. And it was during this period that John F. Stevens was most actively engaged in railroad field work.

A study of Mr. Stevens' early life reveals a rather commonplace boyhood and little indication of the place among the truly great engineers that he was later to occupy. Born in West Gardiner, Maine, on April 25, 1853, he completed the common school course and attended the State Normal School. He started in with an engineering firm in Lewiston, Maine, but soon came west and accepted employment on the staff of the City Engineer of Minneapolis. From 1876 until 1889 he was engaged in railway survey work in Colorado, Texas, Canada, and, after 1886, with the Milwaukee Road.

In 1889, Stevens joined forces with that other great figure in Northwest railroad construction, Mr. James J. Hill. Hill's road, the Great Northern, had been forced into the fertile Red River Valley of North Dakota, and on west into Montana to the towns of Great Falls and Butte. But Hill's eyes were on the Pacific and the Orient, and it was his determination to push his lines to the coast, and by the easiest grades and most direct route possible. It became Stevens' task to locate this route.

All of the expeditions to the west since Lewis and Clark had used passes to the south and west of Helena and Butte. But Isaac I. Stevens, in his official report of thirty-six years earlier, had expressed his opinion that, "There must be a good and practicable pass leading from some branch of the Marias. . ." John F. Stevens determined to find this pass. It was in the autumn and winter of 1889 that this was accomplished; the actual summit being discovered on December 11. The last part of his journey was made in company with an Indian who, becoming exhausted, was forced to remain in camp, while Stevens pushed on up the pass, alone. The fact that the Great Northern crosses this pass at an altitude of 5,200 feet without a tunnel, and on a one percent grade, eastbound, confirms the accuracy of Stevens' calculations.

Leaving the details of construction across the Rockies to others, Stevens immediately gave his attention to a means of crossing the Cascades. Stevens Pass, for it is after him that the crossing was named, was discovered in 1890, at an altitude of 3,400 feet. Anyone who has ridden the Great Northern from Everett to Wenatchee will appreciate the engineering problem involved. The western slope of the Cascades drops abruptly from 3,000 feet to 600 feet in an incredibly short distance. The location of the line down this mountain side was indeed the work of a master. The principal features of this construction are a bridge across an intervening canyon and a tunnel into the opposite hillside, which, after turning at an angle of 180 degrees, bridges the same canyon again, thus landing the line at the desired elevation and location. Stevens stayed in the field until the steel was laid to the coast, and later, as Chief Engineer of the road, put through the first Cascade Tunnel, 13,873 feet long, thus eliminating the switchback which had been originally employed. During the time of Stevens' service with the Great Northern it had grown from a 3,000-mile to a 6,000-mile system, and during the twenty-five years of his active career as an engineer thus far 40 percent of the total railway mileage of the nation was constructed.

For the next two years, (1903-1905), Stevens served the Chicago, Rock Island, and Pacific Railroad as Vice President in charge of operation. In the latter year he was called by the Government to go to the Canal Zone; this on the personal invitation of President Roosevelt who was urged to make this choice by the highest expressions of confidence expressed by James J. Hill.

Stevens' remarkable success with the Great Northern was repeated at Panama. When he arrived in the Isthmus in 1905 work there was practically at a standstill. The climate was unhealthful, accommodations were poor, or non-existent, the rainy season was at its height. The Panama Railroad had practically broken down. At that time the exact type of canal to be built had not been definitely decided upon. Thus Stevens' services fall into three divisions, or directions. He reorganized the Panama Railroad and put it into immediate and successful operation, and superintended the purchase and transportation of supplies; he cooperated to the fullest with Colonel, later General Gorgas, in his sanitation program, which more than anything else made possible the success of the entire venture; and he was a very potent factor in the selection of the lock type of canal. It is a conservative assertion that to John F. Stevens, more than to any other man, should go the credit for the eventual completion and success of this great engineering feat, the Panama Canal.

In 1907, Stevens returned to the States and again served in executive capacities with several railroads. In one of these positions, while President of the Spokane, Portland, and Seattle, the Oregon Trunk and Oregon Electric Systems were built; thus opening up central Oregon which for years had been under the control of the Harriman Lines. From 1911 until 1917, Stevens conducted a private engineering practice with offices in New York City.

In 1917, upon the entrance of the United States into the Great War, Stevens was sent to Russia by President Wilson to assist that country in railway matters. Historians are generally agreed that that country's breakdown was not so much a breakdown of morale as it was a collapse of transportation. The problem simply was that the Russian Railway system was not equipped to convey supplies to the eastern military front; the western terminals having been built at Moscow and Petrograd. At the time of the inauguration of the Kerensky regime, transportation in Russia was the chief concern of the entire Allied forces. To in some way coordinate this service was the task assigned to Mr. Stevens and his associates. The gravity

of the situation, and the realization of this gravity was evidenced by the fact that the Canadian Pacific System held a steamer at Vancouver, B. C., for three days for Mr. Stevens and his committee.

Due to complications with the Bolshevik leaders, Stevens' party was forced to remain at Nagasaki, Japan, until March, 1918, when an entire reorganization of the vast Russian transportation system was undertaken. The immediate problem was two fold: to instruct the Russian personnel and to obtain modern railway equipments. The vast problems to be met, and the insistence of the United States upon an absence of any ulterior motives in the success of the undertaking, led to the organization, in 1919, of the Inter-Allied Technical Board for the control and supervision of the Chinese-Eastern and Trans-Siberian Railways. Mr. Stevens, the American representative on this Board, was honored with its Presidency. Mr. Stevens' success in this venture is demonstrated by the fact that today these two highways of Russian commerce are preserved to the Russian people and open to world trade.

Mr. Stevens' honors, as expressed by decorations of many prominent civilized nations, are significant of the respect in which his genius is held. The more important of these are the Distinguished Service Medal of the United States, The Legion of Honor of France, the Order of the Rising Sun of Japan, the Orders of Golden Grain and of the Striped Tiger of China, the Military Cross of Czechoslovakia, Doctor of Laws by Bates College, and the John Fritz Gold Medal presented by the four principal engineering societies of the United States.

It is indeed gratifying that such a man should be privileged to live to see his genius so recognized, and it is a significant point in Washington history that his first major engineering work was done in this State.

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