A CONGRESSIONAL HISTORY OF RAILWAYS

IN THE UNITED STATES

BY

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TWO VOLUMES IN ONE

VOLUME I : *TO 1850*

[1908 & 1910]

REPRINTS OF ECONOMIC CLASSICS

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(b) *Locomotion.*

As to the power to be used, there was question in Congress as well as in the minds of engineers. Earle writes: "The first thing to be determined in the formation of a Rail-road is the kind of power that is to be employed on it, whether horses or steam-engines;"[18] and that was the question. The locomotives constructed prior to 1830 were weak, crude affairs, and far too ponderous in proportion to the power they developed. Strickland reported that where a considerable distance "admits of being made so nearly horizontal as not to deviate more than * * * 27 feet six inches a mile, locomotive engines may be employed to great advantage," and he thought inclined planes and stationary engines must be used for any steeper ascent. After 1825, however, remarkably rapid progress was made, and some ten years later a government engineer reported that the maximum grade was assumed to be ninety-two feet to the mile![19]

By 1830 it was generally admitted that the steam engine could haul a greater load *at a greater speed* than the horse, and that it could do it more cheaply. But numerous objections were urged, such as meet any innovation. Steam engines were dangerous, being liable to explosion and accident; they caused great wear and tear, and made more expensive construction necessary; great skill would be necessary for their operation, and so on.

However, what caused most question was the utility of steam for hauling heavy, bulky commodities. The report of the English commission on steam navigation, which was studied and printed by Congress, assumes that for bulky objects, where speed was of little importance, horse traction would be cheaper[20] and the great field for railways was supposed to lie in the transportation of passengers. It will be remembered that the first railways were built at collieries, and that Latrobe thought that such traffic alone warranted railways in this country; so by 1830 ideas were to some extent revolutionized. For this change two reasons may be given: (1) there had developed a struggle

of the horses' feet" would throw gravel and dust on the track, increasing friction and lessening adhesion.

[18] *Treatise on Railroads*, 1830, p. 5.

[19] *Exec. Doc. 1835-36*, III, No. 230.

[20] *Exec. Doc., 1831-32*, No. 101.

between the railway and the canal, in which it was seen that the latter could compete for low grade traffic alone; hence its supporters would profit by such an argument; (2) the early, imperfect application of steam instead of horse-power gave some ground for the idea. It was thought in 1825 that locomotives were not practicable on any but comparatively level roads.[21]

The steam locomotive, however, was not the only means of traction which came before Congress, for both compressed air and electricity are found mentioned in Congressional proceedings as possibly superseding or supplementing steam. The South Carolina Railroad Company had to overcome a difficult grade of a mile or so in length and it seemed that it could not be successfully done by locomotives. Stationary engines were considered, but the company inclined toward the use of a new means—the atmospheric railroad—and at the 1844-45 session of Congress a bill was introduced authorizing the importation of machinery and pipes for such a railroad free of duty. In answering objections, Mr. Evans said that it was a recent English invention which experiments had shown to answer exceedingly well for short distances, that the materials could only be obtained in England, from the inventor himself, and that the importation would benefit rather than injure Pennsylvania iron manufactures by ultimately increasing the home demand.[22] But after this discussion the matter was dropped.

A few years later Senator Benton, in advocating a national railway to the Pacific, desired room for "a track by magnetic power."[23] The idea, he believed, had originated with a Prof. Henry and had been "plausibily pursued" by Prof. Page of the Patent Office. "Who can undertake," asked Mr. Benton, "to say that any idea will not become practicable in the present age?"

(c) *Speed.*

As to speed the estimates and prophecies were various. Robert Livingstone in objecting to Stevens' scheme thought that the road would hardly bear so heavy a load as a locomo-

[21] Strickland, *Report*, p. 31.

[22] *Cong. Globe*, 1844-45, XLV, 296.

[23] *Ibid.*, 1848-49, XX, 473.

climate, moreover, was favorable, materials were abundant, and the native labor force adequate and docile. Hargous merely asked that Congress suspend judgment until the relative merits of the route be fully examined. This memorial no doubt helped in bringing about the defeat of Aspinwall's, in so far as a belief in the superior merits of the Tehuantepec route was effective to that end.

The Rockwell Report: 1849

In 1849 Mr. Rockwell of a select committee on canals and railways between the Atlantic and Pacific submitted a voluminous report on the various routes across the isthmian region of Central America. After discussing the relative merits of canals and railways, the conclusion reached was that "between these two modes of communication there cannot be a doubt but that a railroad is most to be preferred."[40]

The Accessory Transit Company's Route

Soon after the treaty of 1846 with New Granda had been ratified in 1848, efforts were made to procure similar transit rights over the Nicaraguan route. The American *charge d' affairs*, Elijah Hise, negotiated a treaty according to which Nicaragua granted to the United States or a company of her citizens the exclusive right to construct a canal, railroad, or turnpike[41] in return for aid in defensive wars. This treaty was not approved of by the United States and Hise was recalled. His successor, E. G. Squier, made a treaty in behalf of Cornelius Vanderbilt and others, under the title of the American Atlantic and Pacific Ship Canal Company, for facilitating transit across the isthmus by means of a canal or railroad. This treaty, again, was not ratified. This Canal Company, through a subsidiary organization known as the Accessory Transit Company, established a communication between Grey Town and

[40] *Rep. of Com.*, *1848-49*, No. 145, p. 5.

[41] In 1849 two memorials came before Congress for aid in constructing turnpike or plank roads across the isthmus. See *S. J.*, *1848-49*, p. 228; and *Sen. Misc.*, *1848-49*, No. 56.

San Juan del Sur by steamboat and stage, and this route was much travelled by emigrants between California and the East, until in 1856 the Nicaraguan government declared the company's concession forfeited for non-compliance with terms.[42] The stage route of the Accessory Transit Company appears to have been the only one feasible for wheeled vehicles at the close of our period, poling up the rivers and crossing the divide over mule paths being the usual procedure. As stated, it was not till 1855 that a railway finally spanned the isthmus and joined the oceans by a modern means of transportation.

In conclusion, two points which are perhaps not sufficiently emphasized in the preceding should be called attention to. In the first place, any isthmian railway was generally regarded even by adherents as a more or less temporary expedient. It was believed that a railway would fill a great and rather sudden need, and at the same time would stimulate commerce till a ship canal became a necessity. A canal was the ultimate goal.

In the second place, the close connection between these isthmian projects and the great movement for a railway to the Pacific which should lie within our own territory is noteworthy. A glance at the map[43] shows that the continent of North America and the Central American region were fairly barred with a series of westward extending railway projects, all having the same goal—the Pacific. Naturally the earliest developments came where there was the least resistance, and that was at the narrow isthmian region. The first Pacific railway was an isthmian railway; but before that particular project was conceived greater plans for a trans-continental railway had been evolved, and in little more than a decade later these plans were carried out. To trace the growth and consummation of this greater, trans-continental branch of the movement for railways to the Pacific is the object of the following chapters.

[42] See *Rep. of Isth. Can. Com.*, *1899-1901*, pp. 46-49.

[43] See below, p. 433.

was supported by eight memorials from citizens of New York.[3] The memorial was referred to the committee on public lands and no report made. Wilkes advocated government enterprise because he believed that only in this way could adequate funds be obtained. With the public behind the undertaking and an official survey of the route, public lands would be so enhanced in value that capitalists would readily make investment.[4]

Gold and Government Railways

Wilkes' scheme for a government road seems to have antedated all others which came before Congress. His proposition was made before the importance of California was generally realized,—indeed, before that importance was great. Gold had not been discovered and a growing American population on the coast was unforseen. With the discovery of gold and attending developments the Pacific railway idea was rendered less difficult; the incentive for a government road increased. We see the direct working of the gold factor in a resolution submitted by Senator Houston (Tex.) It was proposed that a special committee report upon the expediency of a railroad constructed by the government from San Francisco to the Mississippi. The committee was also to estimate what amount of revenue would be yielded by a tax of 8 per cent. on all the gold to be mined in California during ten years, and report upon the expediency of using such revenues in building the road.[5]

Again, in 1850, Wm. Archer memorialized Congress to the effect that a public ship be stationed at San Francisco "to receive and safely keep all gold, to prevent it being taken out of the United States in an uncoined state; that the gold be bought for the United States; and that the portion of its value between $17 an ounce and the real value be applied to make a railroad" from Washington to San Francisco.[6] The memorial was referred to the committee on finance. That this plan met with serious attention seems probable, for it is referred to several times and

[3] *S. J.*, 1846-47, pp. 57-58.
[4] Bancroft, *Hist. of Cal.*, VII, 502. Bancroft dates Wilkes' plan from 1845.
[5] *Sen. Misc.*, 1848-49, No. 12.
[6] *Cong. Globe*, 1849-50, XXI, Pt. II, p. 1097. Also *Ibid.*, pp. 1124, 1839.

in a respectful way. No report upon the matter has been found however, and nothing came of it.

Benton's National Central Highway

Most prominent among advocates of a national railway to the Pacific was Col. Benton of Missouri.[7] Benton came from a section which expected great benefit from such a road; he represented that queer mixture of individualistic and socialistic tendencies which characterized Western nationalism; he was jealous of Asa Whitney's fame. With these factors at work he attacked all private schemes and fought for a national undertaking. Of Whitney he said, "I look upon all such applicants as jobbers, and repudiate them. * * * I go for a national highway, no stock-jobbing."[8]

He proposed that a strip of land a mile wide and extending from the western border of Missouri to the Pacific be reserved for the immediate construction of a single-track railway and a common road. Later all varieties of roads might be added—plank and macadamized roads, and even a railway operated by magnetic power. In the bill introduced at this time[9] 75 per cent. of the proceeds of public land sales in Oregon and California and 50 per cent. of the sales of other public lands in the United States were to be set apart as a fund for constructing "a central national road," which was to extend from St. Louis to San Francisco with a branch to the Columbia river. The proposed reservation for the branch was 1,000 feet wide. One hundred thousand dollars was to be appropriated for treating with Indian tribes, and military stations were to be established along the line. The opening of the route was to be the occasion for grants of land to settlers. It is significant that Benton's nationalism did not extend to government operation, for the bill provided that sections of the road when completed were to be let to individuals or companies under a stipulation for reasonable rates. In modern parlance government ownership with private operation was the program.

[7] See above, p. 402.
[8] *Cong. Globe*, 1848-49, XX, 472.
[9] *Ibid.*