

Terrence Coyne, "The Hoosac Tunnel: Massachusetts Western Gateway" *Historical Journal of Massachusetts* Volume 23, No. 1 (Winter 1995).

Published by: Institute for Massachusetts Studies and Westfield State University

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The Hoosac Tunnel: Massachusetts' Western Gateway

Terrence E. Coyne

When the Hoosac tunnel was first suggested to the Massachusetts Legislature it was to be the longest tunnel in the world. However, since it eventually took over half a century to bring the great work to completion, another tunnel, the Mt. Cennis Tunnel in Switzerland was able to claim the title of world's longest. Yet the Hoosac Tunnel was the longest in the United States and would remain so for the next half century.

As might be expected of a project with such magnitude and duration, the story of the Hoosac Tunnel has significant historical value. Ironically, the legacy for which the tunnel is best known today is the result of unexpected side effects. What stands out today is the revolution in tunneling technology that the Hoosac Tunnel inspired and the terrible cost of the tunnel in human lives. One hundred and ninety-six men and boys perished in the most grim and grisly circumstances imaginable.

However, the elements that gave the project its real dynamism, and made it both the most costly and one of the most politically divisive aspects of Massachusetts' history, have been largely obscured by the diminished importance of the railroad industry. What is now lost to sight was the very realistic expectations of the tunnel's contemporaries who expected that the tunnel's completion would result in a virtual economic revolution. Modern histories which mention the tunnel rarely give these hopes their proper weight. They seldom try to reconstruct what the tunnel's contemporaries thought about the developing

transportation network and where the tunnel would fit into its larger framework. Consequently, it will be the main thrust of this paper to remedy this lack.

Through newspaper accounts, published speeches and letters, and reports from countless legislative hearings, a more vivid understanding arises of the sometimes fevered expectations of the tunnel's promoters and the dire fears of its foes. However, to give this rhetoric the credence it deserves, it is necessary to review in part some trends in nineteenth century economic development. Then, the expected place of the tunnel in this broader framework can be more clearly shown.

During the nineteenth century, the United States changed from a small agricultural society to the undisputed economic leader of the world. In part, the explanation for this phenomenal growth lies in America's abundance of natural resources, or what economists call the "primary environment." However, these resources had existed during three centuries of European inhabitation, and countless centuries of Indian inhabitation prior to that. It was not until Americans developed and became proficient in the technology to utilize these resources that America was able to exploit its inherited natural wealth in the way that catapulted it to world economic leadership.

The Industrial Revolution, with power-driven machinery, interchangeable parts, and specialization of labor, was the most obvious of these technological developments. Equally important was the improvement in agricultural technology, which allowed efficient farmers to increase their per capita production at a rate equal to the expanding urban demand. These developments in agriculture were particularly important to the United States, a country whose most abundant natural resource was its arable land.¹ However, until an efficient transportation network was developed, there was no incentive to produce an agricultural surplus.

The development of this technological complex, what economists call the "secondary environment," was the result of the efforts of shrewd, capable, and creative men who often individually wore the various hats of capitalist, manager, inventor, and entrepreneur. As these men struggled to extract and process

1. Henry Dethloff has noted that "Agriculture was the central component of the developing economy before 1860." See Dethloff, Americans and Free Enterprise (Englewood Cliffs, N.J., 1979), p. 89.

the natural wealth, a climate of vigorous competition emerged. Historically, this period has been presented as one of intense individual competition and unrestrained free enterprise. Sometimes lost to view, however, is the fact that this competition, particularly in its early stages, had its base as much in regional rivalries as it did in the contests between individual entrepreneurs or businessmen. While individuals within a region might compete against one another, in the contest against other sections the same men frequently found reasons to cooperate, both economically and politically. This regional competition between those who would either create or thwart the Hoosac Tunnel was the most vital component in its history.

During the nineteenth century, the most lucrative sources of investment were gradually changing, reflecting the country's economic evolution. This development has been characterized as one from mercantile to industrial, and then to financial capitalism.² Yet, at the time when the Hoosac Tunnel was first proposed, the most lucrative source of investment was still to be found in mercantilism and commerce. A natural consequence of this was that in the major American cities, the majority of wealth was derived from commerce, which in turn was based on the transportation of American-produced agricultural goods to foreign or domestic markets.³

In the South, the climate and soil made cotton king. North of the cotton belt, however, the possibility of developing an equally important and lucrative trade was emerging. In the central United States, from the Appalachians to the Rocky Mountains lay one of the richest potential food-producing areas of the world.

The awareness of this potential source of riches became rapidly evident as this wilderness area became settled at a rate unequalled in the world's history. Yet, in spite of a geometric expansion in population, agricultural production was limited by the lack of transportational access to the market. For although much of the newly-cleared land was within a few hundred miles of the eagerly awaiting coastal cities, overland transportation was so primitive that it was more convenient and economical to ship

2. N. S. B. Gras, Business and Capitalism: An Introduction to Business History (New York, 1947), p. 7.

3. According to Dethloff, "American cities before the Civil War were primarily centers for the collection, distribution, and processing of agricultural products." Dethloff, Americans and Free Enterprise, p. 89.

agricultural produce over a circuitous water route of several thousand miles. Geography seemed to dictate that all the exportable wealth produced in this vast area would be shipped to the Mississippi via its tributaries, and thence to New Orleans. It was a situation which suggested the possibility of the latter city becoming the leading port city in America, while the great eastern port cities diminished to positions of secondary importance, forever hampered by their inferior economic hinterlands.

All of this changed, however, when the state of New York overcame the mountain barrier, with the construction of the Erie Canal. Its success was immediate and overwhelming. Even before the canal was ready for use, New York City's exports had already increased six hundred percent, mostly being food-stuffs from the rich agricultural lands along the sections that were open. The Canal's long-run success was equally impressive, and strengthened New York's position as the leading American city.⁴

The lesson of the Erie Canal was apparent to the businessmen and civic leaders in the other great port cities. A feasible and efficient transportational artery to the West, an Erie Canal of their own or a reasonable alternative, meant civic growth, higher property values, and increased business opportunities. For this reason, the other great coastal cities such as Boston, Philadelphia, and Baltimore lost little time in attempting to emulate New York. Every city that had even the remotest possibility of canal-linkage with the West went ahead with developmental plans. Yet the impracticality of a canal for most cities prompted an urgent search for a transportation alternative, which was not long in coming. During the same decade that the Erie Canal was opened for through-traffic, the Locomotive Trails at Rainhill, England, along with the successful opening of the Manchester and Liverpool Railroad, suggested that an effective alternative to canal transportation was available. Not only did the railroad allow people to travel faster and transport greater loads overland than ever before, it also allowed cities to overcome environmental barriers that from time immemorial dictated the location of trade routes. As a Massachusetts Commission put it, "Although the most level route is best . . . [for

4. Economic historian Carter Goodrich labeled the construction and the effects of the Erie Canal as "One of the greatest breakthroughs in American economic history." Carter Goodrich, ed., *The Government and the Economy* (Indianapolis, 1968), p. xviii.

a railroad] an absolute level is not required as in the case of a canal."⁵

In Massachusetts, the problems posed by the railroad linkage to the west became particularly refined and important, for of all the great coastal cities, Boston was uniquely suited to compete with New York by virtue of its equal proximity to the western terminal of the Erie. As an imaginative Boston merchant noted, if he placed dividers "with one point fixed on the city of Troy and the other upon the city of Boston," New York would lay outside of the circumscribed arc.⁶ So, at least as the crow flew, the wealth of the "Golden West" was as close to the Boston docks as to those of New York.

The temptation to compete with New York was further enhanced by the fact that the destination of much of the exported western food stuffs was Liverpool, England, which was three hundred miles closer to the Boston docks. These facts seemed to indicate to enthusiastic Massachusetts businessmen and merchants that geographical dictates, especially when depicted on a Mercator projection, placed Boston, not New York, in the central position on a great potential trading line between the American West and the European markets.

In their most optimistic hopes, Massachusetts merchants envisioned diverting the ever-growing stream of Western produce from an unnatural aberration down the Hudson River and through New York City to a more natural straight line path through Boston. The consequence of this, it was hoped, would be Boston's regaining its former position as the leading commercial city in the United States.

The key to this dream, was a transportation artery from Boston to the Hudson River near the mouth of the Erie Canal which could bring goods more cheaply or efficiently to Boston than any other means of transportation could carry them from that point to New York. In turn, the key to this new route, a route

5. "Report of the Board of Directors of International Improvements of the State of Massachusetts on the Practicability and Expedience of a Railroad From Boston to the Hudson River and From Boston to Providence," submitted to the General Court, Boston, January 16, 1929, p. 8, in Hoosac Tunnel Collection, North Adams Public Library.

6. Henry A. Scudder, Excerpt from a Speech Presented in the Massachusetts House of Representatives: "The Troy and Greenfield Railroad," April 16, 1863 (Boston, 1863), p. 13.

which had the potential of becoming the world's greatest carrier of agricultural produce, was the Hoosac Tunnel.

The dream of a great new route to Boston which would steal away the eastward flowing treasures of the Erie Canal, in fact, predated the railroad. In 1825, the Massachusetts Legislature appointed a commission to ascertain whether or not a feasible canal route between Boston and the Hudson River could be found. The commission retained the services of the eminent engineer, Loami Baldwin. Baldwin traveled through the hills and valleys of western Massachusetts for nearly a year before reporting his findings to the commissioners. He had indeed uncovered a route. Unfortunately, it was one which was to evoke a half-century of controversy. The proponents of the route praised it for its short distance and favorable grades, while its opponents scorned it for its one great obstacle, the Hoosac Mountain.

The favorable grades were in part the result of the Millers and Deerfield river valleys that parallel much of the northern border of Massachusetts. These two valleys formed a straight one-hundred mile east-west corridor which pointed almost directly at the eastern terminus of the Erie Canal. The story circulated that Baldwin claimed that "it seemed as if the finger of Providence" pointed directly from Boston to the Golden West.⁷

Unfortunately, however, as critics of the proposed route were delighted to point out, the finger stopped a little short. The lovely east-west valley formed by the Deerfield River came to an abrupt halt at the base of the massive Hoosac Mountain. The mountain was part of the southern tip of the Green Mountain range and unfortunately it could not be crossed without severe grades or circumvented without a lengthy detour of more than fifty miles.

On the other side of the mountain, however, again a mere five miles as the crow flies, lay the valley formed by the Hoosac River. This valley sloped gently down to the Hudson River between Stillwater and Mechanicsville at a point which lies exactly on a line formed by the two points of Boston and Schenectady. A tunnel through the Hoosac Mountain, which Baldwin suggested, seemed to be not only the obvious solution, it seemed to be the only solution. However, once completed the tunnel's western portal in North Adams would represent an open

7. N. H. Egleston, "The Story of the Hoosac Tunnel," *Atlantic Monthly* (March, 1882), p. 293.

door to the riches of the Golden West. As that city's motto would simply state, "We hold the Western Gateway."

After considerable debate, the 1826 legislature rejected Baldwin's specific canal plan. But the seed had been planted, and the idea of competing with New York City by constructing a superior route to the mouth of the Erie Canal remained a hope of Massachusetts citizens for the next half-century. The idea of building a waterway to compete with the Hudson River was discarded in favor of a railroad, but when the first road eventually reached that river, it did so by a route that many citizens considered to be second-best.⁸

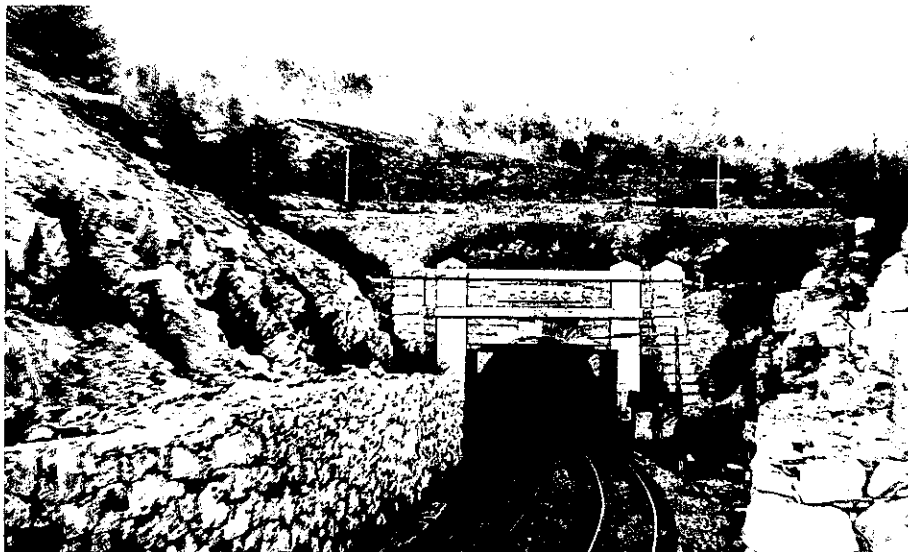
For the political reasons of passing through Worcester, Springfield, and Pittsfield as much as avoiding a tunnel through the Hoosac Mountain, the first cross-state railroad reached the Hudson over a route that was not only twenty miles longer than Baldwin's original one, but also with the added inconvenience of 80 feet per mile grades over the Berkshire Mountains. Therefore, when the great dream of diverting western traffic failed to materialize, a substantial number of Massachusetts citizens began to see the state's first cross-state route as one which was unable or unwilling to develop a competitive rate schedule. This failure increased the support for a more efficient route, one which had never been forgotten by those living along the proposed line of Baldwin's original route.

The backers of the tunnel, or "Tunnelites" as they were frequently called, eventually came to champion their cause with an almost missionary zeal. Their rhetoric suggests a sincere belief that the tunnel would make possible a massive shift in trading patterns, which would not only result in local prosperity, but also bring great benefits to the region and the nation as a whole.

The towns along the line of the first cross-state road opposed the tunnel with an equally adamant fury. They were also apparently sincere in their belief that the competition from the tunnel line would seriously hurt their railroad, and as a consequence bring economic desolation to their region. The battle was joined and for over a generation headlines in pro-tunnel newspapers vacillated between optimism and despair.

8. The first railroad to connect Boston with the Hudson River at Albany ran from Worcester to Albany and was called the Western Railroad. This railroad was an extension of an earlier railroad called the Boston and Worcester. These two railroads cooperated logistically, but they remained corporately independent until 1866 when they merged to become the Boston and Albany Railroad.

What stands out through this whole period is the unwavering conviction of the Tunnelites on two points. First, the tunnel's great length made its feasibility questionable. Although it was without precedent, they never doubted that it could be completed. This belief was held in spite of the fact that during most of the fifty year period, the technology required to complete the tunnel did not exist. However, the Tunnelites took it as a matter of faith that given the time, money, and effort, the proper techniques could be developed. As one newspaper put it, "All the ridicule of unbelievers and all the real difficulties to be overcome do not seem to deter the friends of the project or the contractors in the least. They go forward like Bunyan's Pilgrims as if life depended on it."⁹



West Portal of the Hoosac Tunnel

This faith in the capability of American engineers or "Yankee ingenuity" proved justified. Before the tunnel was finished, every aspect of hard rock tunneling was revolutionized,

9. From the Newburyport Herald, reprinted in the Hoosac Valley News, January 29, 1858.

and, as previously noted, these technological advances seem to be the most remembered aspect of the tunnel's legacy.¹⁰

A second point and a most important one in the Tunnelites' credo was their belief that they were creating a monumental work which by its very nature would have monumental results. This conviction is difficult to grasp from the vantage point of our economically changed world, and makes the rhetoric of the tunnel promoters easy to dismiss. Their passion sometimes suggests careless exaggeration, yet a survey of numerous reports suggests that the expectations were realistic. They were based on a careful observation of the effect that the opening of other routes had on the reduction of prices and exacting details regarding the potential produce from areas that would be reached by the tunnel route. The strength with which these beliefs were held is evidenced by the passion of the pro-tunnel rhetoric and its undiminished persistence throughout the life of the project.

An early sample of the reports on which these hopes were based is contained in Chairman Henry Dearborn's report on Laomi Baldwin's proposed canal route of 1826. In the report is a letter from Daniel Noble, who wrote about the potential trade to be expected from his area. After several journeys and inspections, Noble reported on "quantities of butter, cheese, pork, potash, lime, ground bark for tanning . . . timber and lumber . . . and white sand for the manufacturing of glass," which could be expected from the small area around Greenfield, Massachusetts.¹¹

Almost a quarter of a century later, product statistics were still in the forefront of the tunnel promoters' presentations. At a meeting of the Friends of the Troy and Greenfield Railroad, held in the vestry of the North Adams Baptist Church, Alvah Crocker, the railroad's first president, told his listeners that "the agricultural products from the single town of Hoosick [New York] were greater than all the agricultural goods along the whole

10. Robert Vogel, curator of tunneling exhibits at the Smithsonian, noted in a brochure that "technological innovations developed for the Hoosac Tunnel revolutionized the art of tunneling. From methods . . . unchanged for centuries to the basic pattern . . . [which] remains unchanged today." Robert Vogel, Hoosac Tunnel, (Washington, D.C., 1971), p. 5.

11. Report of the Commissioners of the State of Massachusetts on the Route of Canals from Boston Harbour to the Connecticut and Hudson Rivers (Boston, 1826), appendix, pp. 13-14, hereafter cited as 1826 Report.

Fitchburg Railroad." He then cited statistics for "beans, buckwheat, potatoes, wheat, corn, rye, oats, butter, cheese, wool, flax, cattle, horses, hogs, and sheep."¹² These statistics, of course, produced awesome implications on the cumulative wealth of produce to be forthcoming from the entire length of the road.

In 1858, A. Fonda, a reporter from the *Troy Times*, detailed the benefits that were accruing to the North Adams merchants from the recent completion of a railroad from that city to Troy, New York. This road, the Troy and Boston, would be yet another link in the eventual great "Hoosac Tunnel through route." Fonda provided statistics on the increase in population and housing and real estate prices for North Adams. He noted that already 1,500,000 pounds of cotton, three-quarters of a million pounds of wool, twenty thousand tons on pig iron, and two thousand tons of marble had already been shipped by the new road. Further, he noted that the freight cost of marble had been reduced from \$6.00 a ton to \$3.60. And that freight costs for "madder," a substance used for printing cloth, had dropped from twenty-eight to twelve cents per hundredweight. That was a significant reduction, he noted, for the North Adams Print Works had just ordered fifty tons.¹³

Such reports were typical, and they persisted to the very last days of the tunnel's construction. In 1873, between January 29 and March 21, twenty-two "consolidation" hearings were held by the Massachusetts Legislature, to decide upon the tunnel's eventual disposition and ownership. During this time, staggering amounts of data were put forward. Detailed reports of the foodstuffs produced in virtually every state in the American west were presented, along with the cost of transporting them to various American port cities. In addition, there were figures detailing the cost of shipping these goods to the great markets of the world. And, of course, there were predictions of how these costs would be reduced by the opening of the Hoosac Tunnel route.

Some of the most distinguished railroad men in the country, including Charles Francis Adams, were told, for example, that "According to the highest authority on the subject, the *Mark Lane Express*, England would spend \$195,000,000 for bread

12. North Adams Transcript, January 3, 1850.

13. Troy Times, reprinted in Hoosac Valley News, September 15, 1859.

stuffs."¹⁴ They were further told that Russia was the chief competition for this market, and they were then presented with the complete shipping costs between Odessa and Liverpool. These statistics suggested that the question of the day was not whether the people of Massachusetts could secure part of this grain trade then controlled by New York, but "whether they could take out of the hands of Russia that entire amount."¹⁵ With the tunnel route carrying grain for just one cent a bushel cheaper, the suggested answer was an affirmative one.

The same speaker also presented detailed figures on the trade of coarse cotton goods to China, showing that since 1867 the United States had lost two million yards of trade goods to England. He also presented convincing statistics suggesting that when a link was made between the Hoosac Tunnel and a railroad with a Pacific terminus, the New England textile industry could be the sole supplier to 450 million Chinese people. He also described what that would mean. It meant "the building up of a mighty city; the building up of more wharves and that your harbor shall be filled with steamships and sailing vessels from every part of the globe."¹⁶ It was reports like these that made the rhetoric of the tunnel backers glow with hope.

A half century of reports such as these convinced the tunnel supporters that their route from Boston to the west, through the tunnel, would be one of the most important in the nation. This resulted in the almost religious conviction that not only should the route be constructed, but that it *must* be constructed. This faith extended to the tunnel's feasibility; what must be done can be done, they believed. And like the numerous reports and compilations of economic statistics, statements of faith in the tunnel route's potential greatness and its feasibility abound from the route's initial conception to its eventual completion a half-century later.

Henry Dearborn's 1826 report set the tone for the unwavering faith to follow. First, to those who felt that a tunnel under the Hoosac Mountain was far-fetched, Dearborn had words

14. Report of the Seventh Hearing on the Hoosac Tunnel Consolidation Before the Committee on Railways (Boston, February 27, 1873), p. 4 (hereafter cited as Seventh Hearing. There were twenty-two hearings.)

15. *Ibid.*

16. *Ibid.*, p. 10.

of scorn. "Our view as to the object to be obtained must be enlarged and all such objects thought of as eternal stumbling blocks should be left to those who would turn aside if a reed crosses their path."¹⁷ Dearborn was also clear about the importance of both an east-west route across Massachusetts and the key location of the tunnel. His report proclaimed that "the only impediment to an inland navigation system from the capital of Massachusetts to New Orleans . . . more than 2,600 miles will be a short route of 78 miles from the Connecticut River to the Hudson."¹⁸ Dearborn also noted that since all but five of those seventy-eight miles were covered by the Deerfield and Hoosac Rivers, the only real barrier between Boston and New Orleans was the five mile width of the Hoosac Mountain.

Implicit in Dearborn's ideas was the belief that sustained the Tunnelites for the next half-century. There was one great natural route from the Atlantic coast to the midwestern heartland of America, with just one obstacle, the Hoosac Mountain. With this obstacle removed by the tunnel, this route would practically develop itself. Eastward, it would go from the heartland through the Hoosac Tunnel to Boston, and thence to Europe. Westward, it would eventually and inevitably reach some Pacific port and continue by sea to Asia. This belief in the greatness of this route evolved into an article of faith, and until the tunnel's eventual completion, anticipation never diminished.

The 1826 canal plan was rejected, and when Massachusetts' first cross-state railroad was finally constructed, it reached the Hudson River at Albany, by a route that was considerably longer than the proposed tunnel route, and it also had punishing grades. By 1846, when it became clear that this route would not divert the bulk of incoming goods from New York to Boston, the clamor for the Hoosac Tunnel once more began to resound in the legislative halls of Massachusetts. From that time, pro-tunnel rhetoric would be unceasing until the project's eventual completion in 1876.

In 1848, the Troy and Greenfield Railroad petitioned the Massachusetts legislature for a corporate charter. It asked to be allowed to build a railroad from Greenfield to North Adams, complete with a five-mile tunnel under the Hoosac Mountain.

17. 1826 Report, appendix, p. 19.

18. *Ibid.*, p. 167.

This request quickly galvanized the northern tier of the state, where the new route would pass through. The *New York Commercial Advertiser* noted that it "is alive with the extension of the Fitchburg."¹⁹ Accordingly, its proponents gave the new route top priority on both the state and national levels.

The local Northern Berkshire Whig Committee instructed their nominees that an "extension of the Fitchburg Railroad is paramount and should come before any other legislation." Furthermore, to place the issue into national perspective, they resolved "that we prefer internal improvement to war . . . swords should be turned into spades . . . spears into pick axes and that a ride through a tunnel of the Green Mountains is preferable to a riot in the Halls of Montezuma."²⁰

The possibilities of the tunnel route were quickly grasped by its proponents. In their imaginations, they soon extended the route's terminals far beyond the parochial towns of Greenfield and North Adams. At a meeting in Montague, Massachusetts, representatives from the neighboring towns of Conway, Ashfield, Hawley, and Plainfield concluded that "for so important an object as a new line of transportation between the Capital [Boston] . . . and the Great Lakes there ought to be no pain spared."²¹

Alvah Crocker extended the terminals two thousand miles further west when he declared that "the Hoosac or Green Mountain chain is believed to be the only barrier between Boston and the Pacific."²² He also had a scornful admonition for those who dared to doubt the tunnel's feasibility. To say that the barrier of the Hoosac Mountain could not be demolished was as foolish as saying "that the feudal time worn institutions of Europe develop and mature the will of man more fully than the free air and the more free institutions of our youthful republic."²³

The backers of the tunnel, however, soon found that they had more to demolish than just the Hoosac Mountain. In response

19. New York Commercial Advertiser, reprinted in the North Adams Transcript, December 2, 1847.

20. North Adams Transcript, October 28, 1847.

21. *Ibid.*, November 18, 1847.

22. Fifth Annual Report of the Directors of the Vermont and Massachusetts Railroad Company (Fitchburg, 1849), p. 36.

23. *Ibid.*

to the Troy and Greenfield's petition for a corporate charter, the Western Railroad declared its official opposition. Its president, Addison Gilmore, presented a formal remonstrance to the legislature. Gilmore predicted dire consequences for Massachusetts should the tunnel project be seriously contemplated. Gilmore's reasoning foreshadowed, with a few exceptions, the arguments that would be forthcoming from the tunnel's opponents.

The arguments against the tunnel could be roughly divided into five areas. First, it was claimed that the tunnel would be far beyond the capacity of private capital, and would make demands on the resources of the state, perhaps bringing the state to the point of bankruptcy. This was first noted by the legislative supporters of Gilmore's remonstrance, who noted "that no work of this magnitude had ever been undertaken in this country or abroad."²⁴ Almost twenty years later, the threatened enormous strain that the tunnel held for state finances was translated into human terms by the tunnel's most eloquent and unrelenting foe, Frank Bird. "Sooner or later," he wrote, "it means the inexorable tax collector . . . entering the poor man's hovel. To the majority of our people it means self-denial; here the loss of a comfortable piece of furniture, here the invalid pines for a plate of fruit or a pleasant drive, there books, amusements, a thousand other little gratifications, all of these will go away in the tax collector's pocket."²⁵

The second argument against the tunnel route was that it was unnecessary. Opponents of the tunnel claimed that the Western Railroad was capable of bringing in all the western goods that the state needed. A third argument suggested that because of the tunnel's unprecedented length, it was virtually impossible to construct with the present state of technology; in effect, it couldn't be done. There were also two additional arguments against the tunnel, which came to be heard more frequently during the latter stages of the project. One was that the tunnel lobby was growing so powerful that the Massachusetts Legislature was being irredeemably corrupted. The other was that contractors were getting rich by shamefully inflating their estimates of the costs.

24. Massachusetts Senate Document 120 (1848), p. 10.

25. Frank Bird, The Modern Minotaur (pamphlet, 1868), p. 41.

Once again, Frank Bird eloquently stated both points. When, during the Civil War, Massachusetts Governor John Andrew vetoed a financial support bill for the tunnel, the towns along the tunnel line voted against him. Bird was outraged. "The disaster at Bull's Bluff occurred only two weeks before, darkening the shadows of Bull Run. Every manly heart in the state was moved to support Governor Andrew in sustaining the national cause. At such an hour, when Massachusetts had a right to expect that every loyal man would do his duty, the cry of 'Union and Liberty' was drowned out by 'Tunnel! Tunnel!'"²⁶

Yet, when one of the Tunnelites did do his duty, Bird and the tunnel foes remained implacable. Herman Haupt, the tunnel's first major contractor, was finally driven off the work by Bird and Governor Andrew, after a temporary bridge had collapsed in Greenfield. Bird had used this as an example of the kind of shoddy work that enabled the contractors to enrich themselves. So when Haupt accepted a commission to supervise the construction of railroads to supply the Army of the Potomac, Bird was not about to let him slink away unnoticed.

In his second pamphlet within a year, Bird admonished Haupt: "Don't thrust yourself amongst honest men. Stand in the docks where such as you belong." Bird then accused Haupt of virtually everything he could think of. Among the charges were political bribery, corruption, embezzlement, and mendacity, and the suggested sentence was "Banished from Massachusetts."²⁷ Bird also added a postscript. "The papers say that you are to superintend bridge building! Heaven save the mark! Remember the Green River; and before you allow any of our brave soldiers to cross over any of your bridges, I pray you test them by passing over them yourself."²⁸

The arguments against the tunnel were continually rearranged and restated, depending upon which seemed to best fit the moment, but their net effect produced a hollow ring. The antithetical nature of saying that the tunnel was not feasible in one breath, and in another saying that the contractor was completing his work at a price far below his official estimate diminished both arguments.

26. Ibid., p. 37.

27. Frank Bird, Fact vs. Illusions (pamphlet, 1862), p. 14.

28. Ibid.

The claim that the Western Railroad was capable of handling all the incoming freight from the Erie Canal and other western conduits also appeared weak. For, as the friends of the tunnel never tired of pointing out, the freight delays and bottlenecks at the Troy and Albany freight yards were well-documented.

What does seem historically significant about the opposition to the tunnel is its persistence and passion. The tunnel route was opposed at every step of its construction with a ferocity that strongly suggests that its opponents believed that the economic potential of the route was as great as its proponents asserted. Consequently, it seems that they sincerely believed that the new route would have a serious negative impact on the Boston and Albany Railroad, and on the various towns that it connected. The result of this belief was that the wealthiest corporation in the state — a corporation which counted numerous state officials, including several ex-governors, on its board of directors — used all of its considerable political influence to keep the tunnel project from being approved and initiated. From 1848 on, the bulk of the Hoosac Mountain paled before the bewildering obfuscation to be found on Beacon Hill.

The opposition did have a major effect on the progress of the tunnel. The powerful lobby of the opposition forces caused the dispersal of state funds to be delayed on several occasions. Anti-tunnel rhetoric, especially from the *Springfield Republican* resulted in several lengthy and costly suspensions of the work, during which time feasibility studies were made and remade. Part of these studies contained reports from anti-tunnel engineers who frightened the public with predictions of insurmountable technical problems, with the attendant consequence of financial disaster. And whenever the work was in progress, the contractor currently in charge could look forward to constant attacks on his character. Herman Haupt, the first major contractor at the tunnel, wrote to a business partner that "One must contend against falsehood, misrepresentation, abuse — everything."²⁹

Haupt's fears were well-founded. At a subsequent hearing, when Haupt petitioned for a change in the state loan act, he recalled how Western Railroad spokesman Daniel Harris of Springfield "was bitter as gall against me and went into great

29. Haupt to Cartwright, February 21, 1868, in James Ward, *That Man Haupt* (Baton Rouge, Louisiana, 1973), p. 84.

lengths of how we cheated the state."³⁰ Some of the actual dialogue was recorded by an employee of Haupt, Henry Harley, who wrote that "Mr. Harris appeared before them and . . . gave full swing to his tongue using the terms swindler, scoundrel, etc. with perfect looseness."³¹

In the 1873 consolidation hearings, when the "Great Bore" had finally let daylight through the mountain, one of the original stockholders of the Western Railroad testified to that railroad's continuous opposition to the tunnel, saying that "if it had not been for that opposition . . . the railroad would have been completed in seven years from the time the tunnel was commenced."³²

Yet, in spite of the formidable opposition, the enormous amount of funds needed, and the engineering difficulties of completing an unprecedented project, work on the tunnel continued. Every setback was seen as temporary. And statements of faith continued to be expressed by the supporters of the tunnel. Again, this belief in the tunnel's feasibility and route's potential benefits sustained the supporters and their contractors, through political work stoppages, tragic accidents, and the strain on the state's finances caused by the Civil War. Certainly this faith was the most important element in the tunnel's eventual completion, and examples of it, both flippant and sincere, abounded in speeches, newspaper commentaries, and legislative reports.

In a speech to the Massachusetts State Legislature, Whiting Griswald put the tunnel question in a grand historical perspective when he asked if the great state of Massachusetts should "shrink from such a work which shall forever remain, not like the Pyramids of Egypt a monument to human folly, but an enduring stupendous monument of indomitable energy."³³

Besides comparing favorably with the monuments of the past, the tunnel project also held its own among contemporary projects. When the brother of Cyrus Field of Atlantic Cable fame was running against Henry Dawes, the incumbent United States

30. Ibid., p. 90.

31. Ibid.

32. Ninth Hearing, p. 12.

33. Whiting Griswald, Speech on the Bill loaning Credit . . . for the purpose of Tunneling the Hoosac Mountain in the Senate of the Massachusetts, April 9 and 11, 1851, a printed speech in the Hoosac Tunnel Collection, North Adams Public Library.

Representative from the Berkshires, the local paper quipped "We supposed that to be an even competitor, Mr. Dawes will have to claim a relationship with Mr. Haupt and just inform the people of the superiority of the Hoosac Tunnel over that of putting down a few miles of cable."³⁴

The belief in the greatness of the project was so taken for granted that lack of familiarity with it was considered to be incredible. In 1860, when the Prince of Wales visited Lenox in the Southern Berkshires, the *Hoosac Valley News* pondered that "it seems curious that the Prince should have gone right by the Hoosac Tunnel, the greatest enterprise in the world, without expressing the desire to take a royal peep."³⁵

For twenty-five years, the tunnel remained the greatest project in the minds of its backers, whose legions were constantly enhanced by the thousands of tourists who packed excursion trains to visit the worksite. In addition, they sometimes made the breath-taking stagecoach journey over the mountain, which the tunnel route would eventually eliminate.

The accounts of these journeys glowed with the tunnel's magnitude, and produced a sort of unchanging dream of the changed world that would occur as a result of the tunnel's completion. A correspondent from the *Boston Congregationalist*, who made the stagecoach journey, wrote a long article on the project and concluded with glowing albeit familiar hopes and expectations: "The honor of Massachusetts, the needs of the Mississippi Valley, the wants of the Pacific Slope and the convenience of China and Japan all require it to be finished." The correspondent looked forward to the day when "Boston will receive her tea direct from China through the Hoosac Tunnel [and in return] the A.B.C.F.M. will shortly send her missionaries to China through the tunnel."³⁶ Thus, the multidimensional aspect of the tunnel, the painstaking gathering of data, the overcoming of unprecedented engineering problems, the Herculean fund-raising efforts, and the battle with a determined opposition, gave the project a Homeric quality that is difficult to resurrect. Yet, through the passionate rhetoric of both friend and foe alike, we

34. *Hoosac Valley News*, September 16, 1858.

35. *Ibid.*, October 21, 1860.

36. *North Adams Transcript*, August 20, 1868. A.B.C.F.M. stands for the American Board of Christian Foreign Missions.

begin to understand that for the tunnel's contemporaries it had greater significance than the average railroad. For some time, it promised to be the most significant route ever constructed.

During the sixteenth of the twenty-two consolidation hearings, Ottis Clapp, a long-time tunnel supporter, summed up the hopes and expectations that tunnel promoters had cherished for two generations. When asked to present his views, Clapp told his distinguished audience that he would endeavor to be brief and that he would limit his testimony to a single question, "Why is the Hoosac Tunnel one of the keys to the commerce of the world?"³⁷

Clapp explained that historians and geographers inform us that there is a belt around the earth in the northern temperate zone, about twenty degrees wide. "In this narrow belt," Clapp explained, "could be found most of the intelligence and activity of the world. And," he added, "it so happens, in order of Providence, that our good old state and city are located near the center of this belt."³⁸

The greatest food-producing area of the world, the valleys drained by the Mississippi River and the Great Lakes, was to be found on this belt. But the area was isolated from the rest of the world by two great mountain ranges, the Green Mountains of Vermont and the Appalachians, running from Canada to Alabama. The mountain barriers had but one natural gateway, the Mohawk River Valley. By 1873, this thoroughfare, transversed by the Erie Canal and the New York Central Railroad, was one of the busiest in America. Soon, said Clapp, it would be one of the busiest in the world.

Clapp then repeated the portion of the story which tunnel lovers never tired of hearing: "It so happens that if the Mohawk Valley had continued to the Atlantic in a straight line, it would have pierced the Green Mountains at North Adams. These mountains are usually forty miles in width. [But] at this point, the Hoosac Mountain — fortunately, and as I believe providentially — the width is reduced to less than five miles. Here is the location of the Tunnel."³⁹

On Thanksgiving Day in 1873, a few months after the consolidation hearings were concluded, a mammoth explosion of

37. Sixteenth Hearing, p. 26.

38. *Ibid.*

39. *Ibid.*, p. 27.

trinitroglycerin joined the headings of the east and west portals of the tunnel. The center lines of the headings came together with an error of less than an inch. Everyone deemed the feat an engineering marvel, although some thought it to be closer to a miracle.

By 1876, trains were running through the tunnel. By 1882, an article in the *Atlantic Monthly* proclaimed that "freight cars bearing the logo of 'Hoosac Tunnel Line' can be seen from Massachusetts Bay to the Bay of San Francisco." "Wherever corn and wheat grow or swine and cattle feed . . . there will be cars bearing that conspicuous sign . . . waiting to bring these products back to the distant east."⁴⁰

Thus, for at least some of those who had labored for the tunnel, the hopes and sacrifices had been vindicated. By 1895, sixty percent of the exportable commodities bound for Boston arrived via the tunnel.⁴¹ By the first decade of the twentieth century, the towns serviced by the tunnel line — Fitchburg, Leominster, Gardner, Athol, Orange, Turners Falls, Greenfield, Shelburne Falls, and North Adams — had grown into a thriving industrial tier. The value of their growth eventually exceeded the cost of the tunnel by many multiples.

Taken as a whole, the history of the construction of the Hoosac Tunnel suggests a society with enormous capabilities and energy. A small group of visionary men, some from the Boston business community and some from the small towns along the line, realized that they would greatly benefit from a direct route to the Erie Canal. Consequently, they became determined to see one built, and in spite of overwhelming obstacles, they succeeded. The *Atlantic Monthly* correctly labeled the tunnel as "one of the most noteworthy mechanical and scientific achievements of our time."⁴² Hindsight demonstrates that the magazine was justified in that assessment. It also shows the Hoosac Tunnel to be a prime example of the possibilities afforded by the American free enterprise system, and the diligence, fortitude, and tenacity of the American entrepreneur.

40. N. H. Egleston, "The Story of the Hoosac Tunnel," *Atlantic Monthly*, March 1882.

41. Edward Kirkland, *Men, Cities, and Transportation* (Cambridge, 1969), II: 432.

42. N. E. Egleston, "The Story of the Hoosac Tunnel," *Atlantic Monthly*, March, 1882.