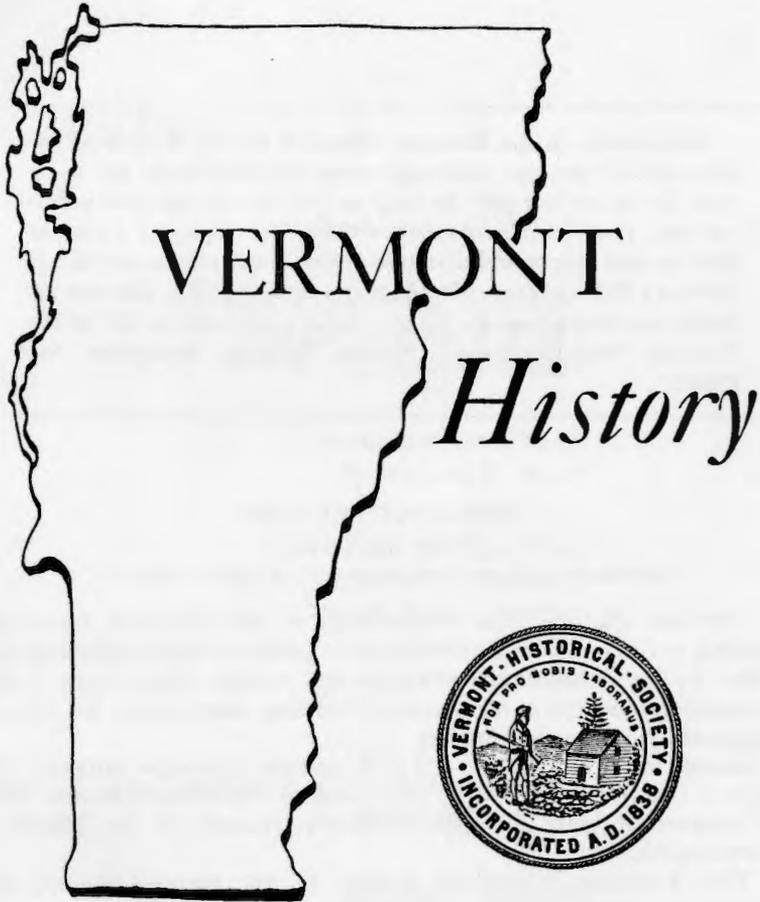
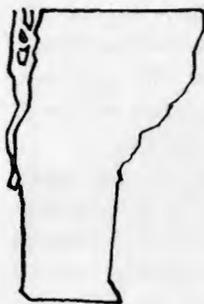


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VERMONT HISTORICAL SOCIETY



"The railroad, the first large-scale, integrated industry in the United States and the largest Vermont enterprise until well past 1900, reoriented everything it touched . . ."

500 Miles of Trouble and Excitement: Vermont Railroads, 1848-1861

By T.D. SEYMOUR BASSETT

Two hundred pick and shovel Irishmen on the Vermont Central right of way, three miles east of Huntington's tavern in Richmond, walked off the job about July 3, 1846,—probably the first major work stoppage in Vermont history. Without pay since they started work in April, the angry laborers threw "impediments in the way of the mail stages . . . and with violent language and demeanor had attempted completely to prevent the free use and occupation of the road by the public."¹

H. S. Barnum, contractor for the five miles they were blasting and leveling, had subcontracted the work to four others, who hired the hands while Barnum secured provisions. When Eggleston, Barker & Co., contractors for the division, sent the first pay the week before, Barnum used it to pay his debts for food and supplies. Threatening laborers caused him to leave for Burlington, "(rather unceremoniously, I admit) and by a circuitous route," and bring Barker back with more money. The cash ran out with many still unpaid, and Barker said he would get the balance in Montpelier."² The workmen held Barker hostage in Jones's Hotel in Jonesville, while Stephen Haight, his partner, went to Montpelier. No reports indicate that he returned with the funds.

In the meantime, the local sheriff arrested the leaders of the protest on charges of disturbing the peace, but the men were soon rescued. On the eve of the Fourth of July, the sheriff, needing reinforcements, called for the Burlington Light Infantry. The infantry mustered and marched in a holiday spirit under Joseph Hatch, wholesale grocer. A fire company received muskets and joined the army to remove this rebellious Irish obstacle to American progress and prosperity. Faced with such a bristling

array of Yankee force and persuaded by a Roman Catholic priest, the men released Barker and dispersed without violence. The authorities jailed a dozen in Burlington, and a good many never received their earnings. "The laborers exercised more patience than could be reasonably expected," Barnum afterwards wrote of the "riot" known as "the Bolton War."³

Early railroad construction in Vermont depended on the Irish immigrants whose arrival penniless in New Brunswick, Quebec or American ports was a convenient coincidence for Vermont contractors. The Irishmen found temporary jobs, but they enjoyed few of the benefits and suffered most of the hardships created by the dynamic economy. Generally disposed to suffer while evils were sufferable, they took action when the law and authority seemed set against them. With no money to take their grievances to court, they took direct action.

Early railroad construction was generally a bootstrap operation. Four levels of contractors in the Bolton case, for example, had scarcely enough cash to start. They had to raise more by assessing stockholders, who often preferred to forfeit their stock rather than pay the assessment. The shortage of cash slowed construction, raised costs, and delayed payrolls. Too often subcontractors bid without knowing the difficulties; they made promises which they could not keep. The workmen, without pay, displaced their aggressions in drunken brawls. Catherine Driscoll Dillon, a beauty in her early twenties, followed the construction gangs. She kept a boarding house and grog shop on the Central, and she moved northward with the crews on the Vermont and Canada, with whiskey always available after pay day.⁴

By the end of 1848 the Vermont Central had begun operation from White River Junction to Montpelier, and crews pushed to complete the northern end to Burlington. Other gangs worked on the Connecticut and Passumpsic north from Wells River to St. Johnsbury, the Vermont and Canada between Essex Junction and the Canadian border, and all along the Rutland and Burlington from Bellows Falls to Burlington. A paymaster described his monthly visit to a shantytown on the Rutland and Burlington near Ferrisburg that winter:

I drove to a place in the forest, where nobody ever went, or goes except Railroad folks, when I found about 40 paddies at work & quite a settlement of Shantys. I had my horse put out & went into a Shanty. 6 inches by 4—where the goods are kept—& commenced posting up the paddies accounts, which occupied me until perhaps 8 o'clock . . . I had a very polite & urging invitation to take some tea & spend the night among those *animals* congregated in the Shantys, but as I had in my possession 500 dollars . . . I did not feel safe to accept of their very polite invitation.⁵

He returned the next day to pay them off—at under four cents an hour after deducting company supplies and shanty rent.

Office of the Vermont Central Railroad Co. }

BOSTON, JANUARY 1, 1846. }

SIR:

You are hereby notified that the Second Assessment of TEN DOLLARS on each Share of the CAPITAL STOCK of the VERMONT CENTRAL RAILROAD COMPANY, has been laid by the Directors, payable on the 27th day of January next.

Payment may be made at the Bank of Montpelier, at the Farmers and Mechanics Bank at Burlington, or at the Treasurer's Office, No. 17½, Tremont Row, Boston.

Interest will be allowed upon the whole amount of Capital paid in, at the rate of six per cent. per annum, payable semi-annually.

Your obedient Servant,

SAMUEL H. WALLEY, Jr., Treasurer.

"Early railroad construction was generally a bootstrap operation," which frequently required special assessments on stockholders such as the second assessment of \$10.00 a share demanded by the Vermont Central Railroad on January 1, 1846, before it had inaugurated service in the state.

The environment of the construction gangs did not tempt the native Vermonter to delay his departure for the West or the factory towns. But the Vermonters who stayed had great expectations for the railroad as their coming savior. The new wonder machine excited their imaginations. People would "Stop, Look and Listen" as the cars went clattering by, and at the depot they gazed at these strange, swift symbols of faraway romance. They viewed smoke and noise as signs of progress. In their dazzlement, promoters, operators, and investors forgot caution and the traditional Yankee virtue of pay-as-you-go.

Railroads triggered tremendous changes in nineteenth century Vermont. In less than one decade, by 1855, over five hundred miles of single track crisscrossed the state. The huge investment, amounting to \$26,000,000 in construction alone, paid few dividends and was an almost total loss, but the managers did well. The railroad, the first large-scale, integrated industry in the United States and the largest Vermont enterprise until well past 1900, reoriented everything it touched, and it touched nearly everything.

The earliest railroads in Vermont crossed the state on their way between Canadian and western cities to the warm water ports on the Atlantic.

Vermont itself remained part of the "underdeveloped" North Country which could not support any line out of its own traffic. The first railroads depended on through freight, and the imperial ports of New York, Boston, Portland, and Montreal competed for the rights of passage to each other or to the Middle West, while local chieftains pitted Montpelier against Rutland. The speed, size, and complexity of railroad operation made the old precedents of stage coaching of slight value and of steamboating only a bit more. The enterprise was new, and every crisis called for innovation. Even the early experience with the short, flat, profitable spur roads out of Boston and the other ports misled early Vermont promoters. The corporate form of organization for trade and manufacturing had only just begun by mid-century, and the large-scale, complex railroad operations required sophisticated management for which few models existed.

The 1843 General Assembly in the early days of the session chartered the Vermont Central, the Champlain and Connecticut River (after 1847 called the Rutland and Burlington), and several other lines. The minority of ninety-odd Democrats in the legislature believed in "equal rights and special privileges to none," as Douglas Danforth, editor of the *St. Albans Vermont Republican*, put it. They thought that the banks had duped the people and abused their charters during the depression which followed the Panic of '37 and felt that business by competing individuals or partnerships "would regulate a better system of associate labor, than legislative enactments can ever produce." Danforth denounced corporations as "the worst evils from the Pandora-box of Whiggery yet. I don't believe the interest of the community, or the prosperity of the country require them . . . they are hurtful of them both."⁶ But the Whigs and a few bolting Democrats defeated the provision, copied from Massachusetts charters, for legislative right to repeal or alter them, and gave the Central perpetual exemption from state taxes while its profits stayed below ten percent.

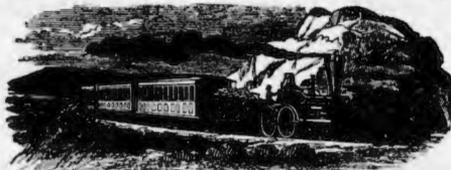
With the depression waning and convinced by the completion of a road through the Berkshires that trains could climb hills, Boston capital prepared to push a route to the Great Lakes, between the New York railroads to the south and Canadian systems to the north.⁷ With their fresh charters in hand each company rushed to sell stock in the big cities where, with the hurry and keen competition, the available money quickly was spread thin. Three-quarters of the \$2,000,000 originally thought to be enough for the Central came from Boston. The ledgers and the historians of the Rutland do not record how much city capital was secured.

The Vermont and Canada received a charter in 1845 to build the last stretch of the route from Boston to the foot of Lake Champlain near the Canadian border to connect with the Ogdensburg, chartered in

1855.

Northern Route, via Ogdensburgh.

GREAT AMERICAN RAILROAD



AND STEAM BOAT LINES

RATES OF FARE VERY MUCH REDUCED.

Quickest, Cheapest, Most Reliable & Direct Route.

FROM

Boston, Salem, Portsmouth, Worcester, Lowell, Nashua, Manchester, Concord, Windsor, Fitchburgh, Keene, Bellows Falls, White Riv. Junction, Northfield, Montpelier, Waterbury, Burlington, St. Albans, Plattsburgh, Rouse's Point, and intermediate Places.

TO

Ogdensburgh, Kingston, Sackets Harbor, Oswego, Rochester, Toronto, Hamilton, Niagara Falls, Buffalo, Cleveland, Cincinnati, Sandusky, Toledo, Monroe, Detroit, Chicago, Milwaukee, Galena, Dubuque, St. Louis, and all other all WESTERN PORTS.

U. S. Mail and Express Steamers, (Lake Ontario;) OGDENSBURGH, VERMONT CENTRAL, and connecting R. Roads.

UNITED STATES MAIL STEAMERS.



ONTARIO, . . . Capt. Throop. | CATARACT. . . Capt. Estes.
BAY STATE, . . . Capt. Ledyard. | NIAGARA, . . . Capt. Eggleston.

One of these large commodious Lake Steamers will leave OGDENSBURGH, daily at 9 P. M. on arrival of the Cars from BOSTON, and BYTOWN and PRESCOTT RAILWAY-KINGSTON next morning at 7 A. M.—SACKETT'S HARBOR at 10 A. M.—OSWEGO at 4 P. M.—ROCHESTER at 9 P. M. and arrive at Lewiston, next morning at 5 A. M. connecting with Steamers for Toronto, Cars for Niagara Falls, Buffalo, and Hamilton; and Michigan Central, Southern, Lake Shore, and Great Western Rail Roads, and Steamers of the American Transportation Co. Buffalo, and Bytown and Prescott Railway.

AMERICAN EXPRESS STEAMERS

NEW YORK, Capt. Chapman. | NORTHERNER, Capt. Childs.

From the 10th June to the 30th September, one of these LARGE and BEAUTIFUL STEAMERS will leave Ogdensburgh daily. (Sundays excepted,) at 5 P. M. touching at Cape Vincent, at 6 1/2 P. M. and arrive at Lewiston at a convenient hour next morning, connecting as above with the different Lines.

THROUGH TICKETS can be purchased at Stations of the Boston and Lowell, Boston and Maine, and Fitchburgh Rail Roads, Boston; Old Kimball, 108 State Street, Boston, Portsmouth and Concord Station, Portsmouth; Intermediate Stations on the Concord, Northern New Hampshire, Vermont Central, Ogdensburgh, and connecting Rail Roads; E. A. HERRIMAN, Agent, Ogdensburgh; and all authorized Agents.

M. McKAY, General Ag't. Niagara Falls.

M. L. CHURCH, Agt. Burlington, Vt.

A. W. WOOLLEY, Gen'l Traveling Agt. Ogdensburgh.

Steam Press of Thomas & Lathrs, Buffalo.

This being the favorite route for those visiting or moving to the West from the Northern and Eastern States. Don't be misled, but purchase Through Tickets via Ogdensburgh, thereby avoiding extra expense for Cartage, Wharfage, &c. &c.

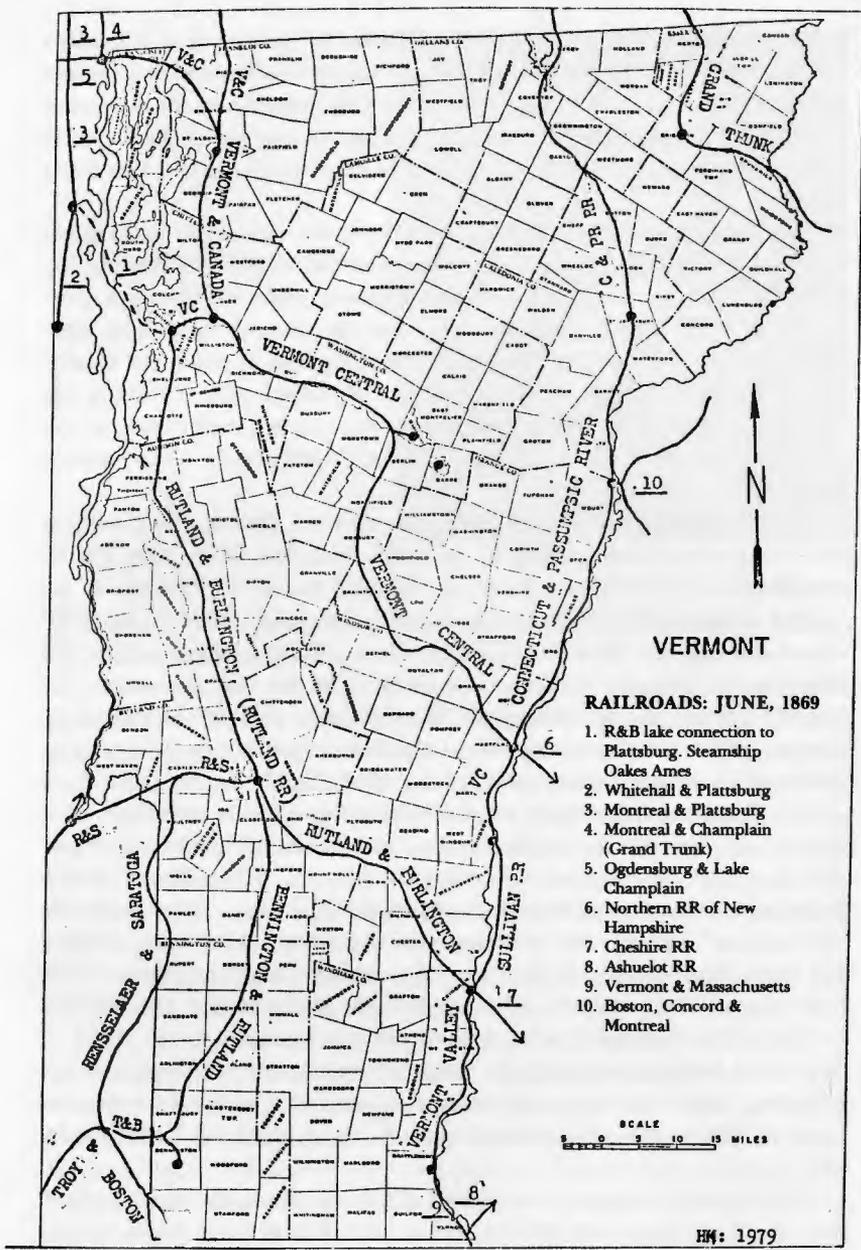
Continuous Lines of R. Roads and Steamboats, for speed, comfort and safety unequalled; Scenery unsurpassed; Passing the Mountain scenery of Vermont, N. Hampshire, & L. Champlain, Thousand Islands, St. Lawrence River, Falls of Niagara, Susq'n Bridge, &c.

New York the same year as the Northern Rail Road. The Canada thus controlled the single, all-rail way to circumvent the barrier to the west posed by Lake Champlain. The Canada controlled the franchise of a possible competing line across the sand bar to South Hero and north through Grand Isle County. Vague charter references to connections between the Central and the Canada enhanced the Canada's control, and it won every negotiation with its connectors.

By 1855 (See Map 1.) two routes from Boston to Montreal crossed Vermont and a third, the half-built Grand Trunk from Portland to Montreal, would soon begin operations. The Champlain Valley now had three ways to improve its old water and wagon connection with the Erie-Hudson system. Most of these routes consisted of half a dozen corporate segments in three or more jurisdictions. The complex structures, weak financial foundations in a capital intensive enterprise, inexperienced management, intense competition for the lucrative through traffic, and revenues reflecting recessions, turned Vermont's railroad history into a tangle of bankruptcies, receiverships, and expansive dreams for economic success rarely realized.

Some curious choices of route resulted from personal and town interests and the desire to hew the straight line for the benefit of through business. Of the many branches of the White River leading from the Connecticut to the Green Mountain watershed, the leaders of the Vermont Central chose the route which served Northfield, where Charles Paine owned a woolen mill, a hotel and land. The Central's disbursing agent (Paine) gave its president (Paine) \$26,000 in land damages. Track twisted along the Dog River, the northbound heading southeast on one stretch, to reach Northfield. Paine produced a favorable engineer's estimate, but compared to the route through Williamstown Gulf to Barre and Montpelier, the Northfield route was steeper, longer, and served towns with fewer people and less business. (The choice delayed the Barre granite industry thirty years and left the state capital on a branch line.)

All the railway surveys assumed that "the through route" would run to Burlington and thence by steamers across Lake Champlain to a New York port and on to Ogdensburgh by rail. Burlington merchants, especially Timothy Follett and Thomas H. Canfield, prime movers of the Rutland and Burlington, had a vested interest in this version. It seemed obvious to them that the port of Burlington would gain as a terminal. This assumption prevented their recognizing the inferiority of their proposed water and rail system compared to a route around the north end of Lake Champlain. Their failure to understand the advantages of a through rail route thwarted the Rutland's efforts to tie the Vermont and Canada to their route to Bellows Falls, Fitchburg and Boston. That failure deprived



MAP 1

Courtesy of Dr. Harold A. Meeks from his forthcoming geography of Vermont, Land of Green Mountains, University Press of New England.

the Rutland of all but a water-borne trickle of western and Canadian business. An 1849 charter amendment permitted the Rutland to intersect with the Canada at St. Albans, provided they completed the extension in two years. A stockholder of the Rutland, in the interest of the Canada, managed to have an injunction debated in court until the two year limit elapsed.⁸

The Vermont and Canada joined the Vermont Central in Essex Junction, violating its charter requirement to meet the Rutland in Burlington. Since the charter generously allowed thirteen years to complete construction, the Rutland could not even sue the Canada until long after the damage was done. The Central met its obligation to reach the Champlain shore by building a branch past the Winooski mills, climbing the Burlington bluff and coasting down the ravine to a separate depot, in the process redoubling the inconvenience of deliberately inconvenient scheduling.

The Rutland's need for a northern link made the Central pay a suicidal price to prevent their getting it. In 1849, with the main lines almost completed to the Winooski River, the Central leased the Canada at an annual rental of 8% of its cost of construction, guaranteed by an 1850 clause allowing the Canada to run the Central if necessary to collect the rent. In the financial failure of the Central in the next few years, the Canada invoked the agreement of 1850. When the judicial air cleared, J. Gregory Smith and his cronies of the Canada emerged, sitting pretty, as receivers and managers, principal officials and stockholders of the Central.

The first financial collapse of the Central served as a harbinger of a century of recurring financial troubles, receiverships, and management changes which characterized railroading in Vermont. The railroads usually began with great expectations and seldom realized them. When railroads sold stock in Vermont, they promised that real estate values would double. For those close enough to the lines, this promise often came true. The total value of Vermont farms rose from \$63,367,227 in 1850 to \$94,289,045 in 1860. The Rutland *Herald* noticed an improvement in the looks of farms and farmhouses along the Rutland route and "the more minute attention paid to matters and articles of sale." A Vermonter wrote his uncle in Illinois that the railroad had abolished barter and brought in cash.⁹

The unearned increment in railroad village real estate was much greater than the farm increases. Where the railway followed the stage routes, the rise benefited the owners in already important centers. Speculation was stimulated, however, where villages rolled their centers down hill to the depot, as in Rutland and Bellows Falls, or shifted from one center

Governor Charles Paine
(1799-1853)



to another within the town, as in Danby, Hartford, Randolph, Essex, St. Albans, Newbury, Barton and Newport.

Rutland business left Main Street, and a whole gridiron of residential development filled the space between Main and Railroad Avenue. People like lawyer Josiah Hawkins of Reading were among its immigrants from the hill country. "I have sold out in this town," he wrote in 1860, ". . . & have an idea of Rutland being a large business town & county seat . . . I have two children & wish in locating the advantage of a good school." "Nebraska," the flat along Otter Creek beyond the tracks in Rutland, was transformed from a farm into a settlement of mechanics and laborers.¹⁰

The shift of centers in Pawlet made Mark's Corners, a hamlet of eighteen inhabitants, into West Pawlet, with new houses, new paint, a hotel, and a freight business of sixty dollars a week. East Poultney, sidetracked by the Rutland and Washington Railroad, maintained enough votes to prevent the shift of town meeting to West Poultney until 1868. In Rupert Jonas Wilder, retired from the superintendency of the Rutland and Washington in 1858, with a contract to supply that line with fuel, bought woodlands around West Rupert and built a store to supply his choppers and teams. Prospering, he added a shoe shop, a miller's room and a tin and stove shop, and ran the post office. He grossed \$50,000 a year—big business for a country store in a depression—and eventually collected most of his bills. South Royalton grew in five years from two sets of buildings

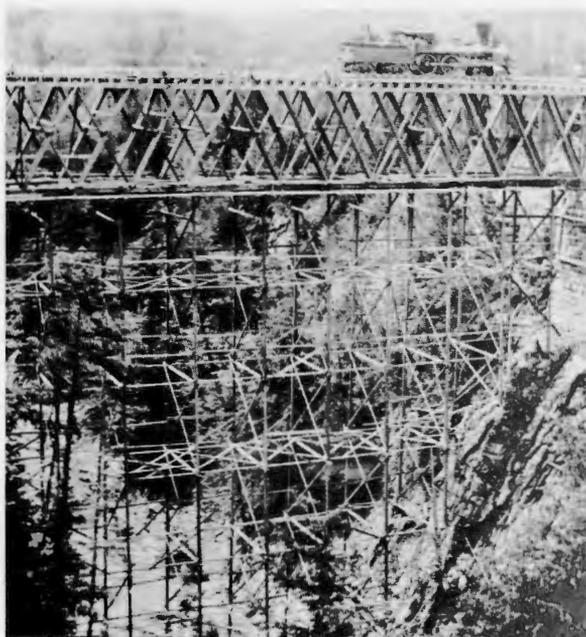


The Montpelier depot built for \$7,000.

to a hundred houses after the Central came through.¹¹ Island Pond was nothing but the woods and water of Brighton when the Atlantic and St. Lawrence Railroad (Grand Trunk) came in 1853. Lumbering started and within two years the village quickly boasted of twenty dwellings, two hotels, a school, a church, and three saw mills hiring 190 men.¹²

Railroad business made new towns and marshalled new labor; and railroad engineering added new assets to the grand list and new landmarks to Vermont scenery and the village skyline. While a major fraction of the profits disbursed went to English and southern New England industrialists, several millions remained in Vermont for land damages, buildings, wages, salaries and fees, and the lines themselves remained as permanent improvements.

Building railroad stations, freight and engine houses and associated shops presented new problems for the architect, but directors usually solved them without benefit of expert advice. Frequent fires wiped out their many mistakes in wood and brick. Ammi B. Young, on the other hand, the architect of the Vermont State House and the Boston Custom House, brought long experience to his designs of the Northfield and Burlington stations on the Central and many depots along the Rutland. The \$7,000 passenger station at Montpelier, designed in 1851 by a local archi-



The wooden bridge built across Quechee Gorge in 1875 for the Woodstock Railroad. Courtesy of the Vermont Album, The Stephen Greene Press.

tect, contained at the ground level the track and platform, ticket office, gentlemen's and ladies' waiting and dressing rooms, and upstairs, a hall and two small offices. At Rutland, the engine house was a copy of the Boston and Maine's at Lawrence, Massachusetts, and those at the Bellows Falls and Burlington terminals probably were too.¹³

The Central expensively (\$11,700) rebuilt the Northfield station after the fire of May, 1852. The village was the home of the Central's President, Charles Paine; the schedule called for an overnight stop which benefited his hotel. The most disastrous fire destroyed the Northfield machine shops, with an uninsured loss of at least \$80,000, not including loss of employment. Northfield lost its car factory to St. Albans when the Smiths took control in 1853 but kept the repair shop, steam saw mill for ties, and the shop making patented passenger coach chairs. These enterprises grossed over \$250,000 in 1860. When the Smiths took these away, too, in 1863, Northfield's population plummeted.¹⁴

The building of railroad bridges proved an expensive engineering adventure in trial and error, with too much error. The railroads did not

employ iron and steel for this purpose in Vermont until the 'seventies, although the Roeblings, who had engineered the Brooklyn Bridge, began using metal in the West by 1850. The Vermont roads considered wood adequate, because few bridges, except those across Missisquoi Bay and the Narrows of Lake Memphremagog, crossed wide or deep water. Sparks from the engine started fires; storms, thaws and floods attacked foundations; and the trains' weight, under-estimated by the engineers, weakened the timbers. The eighteen-foot flood of July, 1850, which sent people wading on State Street in Montpelier, caused a \$33,000 loss to the Central and stopped its traffic for three weeks. The same flood washed out five bridges on the Rutland.¹⁵

The ribbons of iron snaking across the countryside and the noise and smoke quickly located the railroads; so, too, did the telegraph poles and wires which followed the track. The Troy and Canada Junction Telegraph Company was the first organized and operated in Vermont and used the Morse patent. Ezra Cornell, the contractor, had all the poles up by December, 1847. He completed the wiring in January and put the line in operation from Troy to St. Johns by the end of February, 1848. It cost about two hundred dollars a mile, paid off two-thirds of its debt after eighteen months, and declared a six percent dividend the third year. Originally a partnership of about three hundred members, the firm incorporated in 1849 with half its shares held in Burlington. From Vergennes the company would telegraph messages to Rutland, Castleton, Whitehall, Orwell, Middlebury, Burlington and St. Albans for twenty-five cents for the first ten words and two cents per additional word.¹⁶

As soon as the Troy and Montreal line was in use, the Vermont and Boston was chartered with Charles Paine, G.W. Benedict of Burlington and publisher of the *Free Press*, and Boston businessmen providing the financing, and Benedict's son, Grenville, in the field after a stint working on the Troy and Canada Junction. The Boston line was completed to Montreal in 1853 and declared its first dividend of three percent two years later. It followed the rail route, except for a detour through Woodstock, and built a branch to St. Johnsbury in 1852. In 1864-65 it extended the wires to Stowe, added another line up the Connecticut River from Springfield, Massachusetts, and opened new offices north to Newport.¹⁷ Not to be outdone, in 1850 the Rutland directors authorized Charles Linsley to build a Boston to Rutland line. His son, supervisor of construction, followed the Fitchburg, Cheshire and Rutland railroads and connected with the Montreal line by 1852.¹⁸

The railroads did not put the telegraph to work in dispatching until 1852, the year after its first use on the Erie Railroad. The Rutland's northbound engine, stuck in a snow bank between Bellows Falls and Rut-

land, was scheduled to meet the southbound train at Middlebury. Passengers persuaded Albert Copeland, Middlebury telegraph operator, to wire the Superintendent in Rutland. He wired back instructions to proceed to Rutland, thereby accommodating local and New York passengers. The strict rules required waiting at Middlebury, and the fearful engineer would not move the throttle until Copeland agreed to ride in the cab with him.¹⁹

The early railroad managers, often poorly organized and lacking even rudimentary management systems, faced a whole series of novel questions. How could accidents be prevented? What comforts would win more passengers? How could rates and schedules speed the traffic and win business from competitors? Should coal replace wood fuel? How to maintain rolling stock and how to schedule it most efficiently? The Vermont railroad operators all but whipped the engines, so novel were the strange iron beasts.

Accidents, in terms of passenger miles or in proportion to the labor force, no worse than in other industries or earlier carriers, were nevertheless numerous, and the public assumed that nothing could be done about them. "To publish them all would crowd out everything else," wrote the editor of the *Middlebury Register*, December 7, 1853. Railroad Commissioner George P. Marsh urged full reports and investigation, and by the sixties, his successors tabulated a partial list of accidents, emphasizing the negligence of the victims.

The loss of life and limb began during construction. The inexperienced bosses and men blew themselves up in blasting operations. Clumsy derricks loading stone or hoisting timbers dropped their loads on workmen, and gravel diggers dug their graves in cave-ins. The Central's hemlock and spruce ties all needed replacement by 1853, and the rails, often second-hand from England, made a rickety roadbed. The men in the engine cab bore the brunt of penny-pinching and superficial inspection. A faulty switch placement sent an engine through the Otter Creek bridge at Whiting. Happily the couplings broke, saving the passenger cars. "Gross carelessness in the laying of the rails" threw a train off the track near Brandon. Bridge washouts and rock slides in cuts caused frequent derailments. Poor fences, or none at all, let sheep and cows onto the track, and not every locomotive had a cow-catcher.²⁰

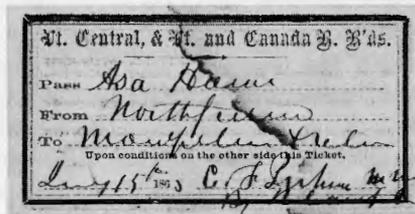
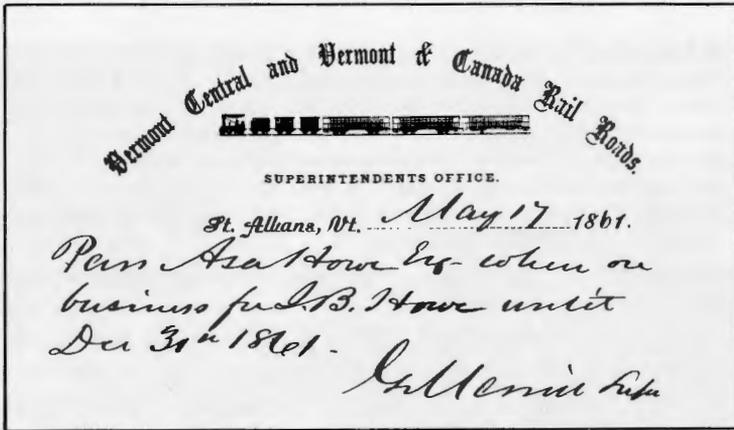
Bodies paid the price of mechanical errors. When part of the machinery of a passenger locomotive broke near Whiting, the fireman, already skittish from having been pulled from an overturned engine a few days before, jumped to his death. The Boston-bound mail train derailed near Clarendon when a drive wheel came off, and a passenger car rolled over three times. Boiler inspection lacked rigor, and explosions became the subject of engineers' nightmares. In one case, a weak coupling saved the



At Brockway's Mills in Rockingham "The down mail train of July 24th, 1869 was thrown from the track . . . and narrowly escaped being precipitated from the high bridge 78 ft. upon the rocks below." P. W. Taft of Bellows Falls took the photograph from the east. Courtesy University of Vermont.

cars from following a derailed engine into the river; in the next it caused the wreck. Conductors, brakemen and passengers were crushed between cars or when they fell off platforms. On top of a freight at night, a man had no one to warn him of a low bridge, not even the "tell-tale" dangling rope signal. Handcars went through open drawbridges, caught their operators' clothing and hurled them to the ground, silently struck pedestrians and themselves became the victims of the trains. Collisions were few but monstrous. Grade-crossing accidents were surprisingly rare (not many drivers thought their horses could beat the cars), but pedestrian casualties, frequently section hands and children, were most common.

The law and the courts regarded accidents as the bad luck of traveling. Injured passengers received some payment for damages, but employees had to depend on the overseer of the poor or fraternal orders. Negligence was dealt with by firing the culprits. The law provided for nothing but fences, signs at crossings, the ringing of a locomotive bell, and penalties



Railroad Pass

"Pass Asa How, Esq. where on business for J.B. Howe until Dec. 31st 1861."

for employee intoxication on duty.²¹ The danger from riding the mechanical carriages seemed no worse than being thrown from a stage coach or horse. The *Watchman* regretted to report in 1849 that a Rutland train, with ladies aboard, reached speeds of eighty miles an hour during the four days beginning October 31. The Central, on the other hand, observing safety precautions, took only passengers who had chosen the racing expresses, and still had better elapsed time. Both trains averaged over twenty-six miles an hour.²²

Free rides or half fares were common at first. After five or six years, fares were raised, and passes went only where they would do most good. Passes and tickets were for one short line only, until the invention of the coupon ticket. "I conceived the idea," claimed Jonas Wilder, Superintendent of the Rutland and Washington in the fifties;

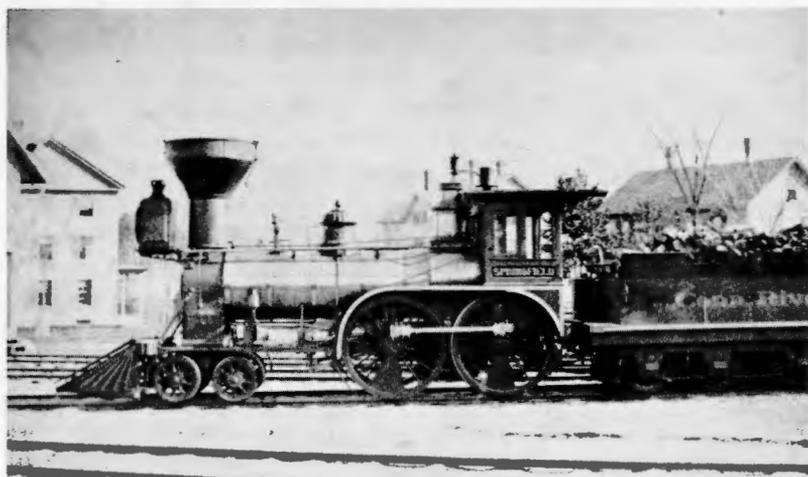
of a coupon ticket, sold at Boston through to destination, and each road take up a coupon; it would be more easily settled between the roads and better for the passenger. I had some samples printed and started west to see if the roads . . . would accept them . . . I printed my tickets to read from Rutland . . . and placed our tickets in the Fitchburg Station

at Boston and the principal stations between Boston and Rutland I soon found we were getting western passengers I then got out a map of the line and advertisements and framed them, sent one of the conductors west to distribute them and arranged with the western roads to ticket back over our road in the same way; the roads adopted the plan and soon we had passengers from the west, and it grew up to a large business. The Boston & Albany saw we were drawing on their passenger traffic and adopted the coupon ticket.²³

Passengers were more often inconvenienced than uncomfortable. Southbound on the Vermont and Canada, after hours' delay at Rouses Point, an overnight stop in St. Albans and an early morning start, travelers missed the only Burlington connection. The Central forced the Rutland to run a three-stop express for the Montreal connection at Essex Junction, and an extra accommodation train for local passengers. Poor connections were the rule among competing lines, although coordination improved after the Civil War. Sleeping cars appeared on the Central in the summer of 1859, and gradually the overnight stop at the managers' hotel in Northfield disappeared. Central partisans featured the hardships of ladies who spent the night in the cars without fire when a Rutland engine froze up in a severe snowstorm of January, 1851, and the Rutland replied in kind. Railroads became common carriers of disease as well as passengers and goods. Ellen White of Thetford had smallpox in Boston and spread it to a dozen others by going home before she was well.²⁴

Before the completion of the line in 1850 the Central received nearly equal revenues from passengers and freight. Within the decade, however, freight nearly doubled passenger receipts; the overwhelming portion of freight revenues came from through traffic. For the fiscal year of 1857-58 the Central earned \$445,000 from through freight and \$49,000 from local; the Rutland, \$158,000 and \$30,000 respectively. At one point a rate war between the Central and the Rutland reduced the cost per mile below three cents per ton, and attempts to agree failed, but within a few years the rates went up. Although Montreal preferred not to depend on Boston as its winter port, the Reciprocity Act of 1854 provided a few years of heavy Canadian traffic through Vermont. This business expanded because bonded goods did not pay tariff. The value of goods from Boston in bond reached a peak of over \$5,000,000 in 1854, and Charles Paine claimed a similar expansion southbound.²⁵

For a short time the vagaries of rates, the barrier of the Berkshires, and the lack of a railroad bridge across the Hudson at Albany sent carloads of middle-western cattle and hogs to Boston via Rutland. In order to ship by the present Boston & Albany, livestock had to be driven through Albany and ferried at six or eight cents a head. Shippers often preferred the alternative. They pastured the livestock a day or two, loaded them on cars level



The woodburning locomotive Springfield of the Connecticut River Railroad, October 21, 1869. Courtesy of Island Pond Historical Society, Island Pond, Vermont.

with the pasture, and sent them north. "A drovers' Saloon car has been fitted up," reported the *Rutland Herald*. Master mechanic Perkins of the St. Albans car factory designed and built some twenty cattle cars for this trade in 1859.²⁶

Not all of the livestock crossing Vermont came from out of state. Despite the fact that the specter of western competition reduced Vermont herds in the 1840's, the Vermont livestock industry benefited from the railroad. "The Vermont Cattle are well known in our market as the choicest," said the *Boston Traveler* in 1848, "and we now begin to receive them, free from the loss of fat and unexposed to the chance of being heated, by the long journey, on the hoof." In 1850 between twelve and fifteen thousand Vermont cattle were sent to the Cambridge market alone, and each weekly shipment, there or at Brighton, usually exceeded that of any other state.²⁷

Local freight had to be stimulated with low rates. Jonas Wilder, as agent for the Central, gave away a few barrels from the Underwood lime kiln near Essex Junction to Massachusetts builders and bleacheries. The Central soon had shipments worth \$1,000 a month, and Underwood added six kilns. Wilder set the rate for lumber from Burlington to any point between Manchester, N.H., and Boston at \$4 per thousand board feet—he claimed it stayed at that rate for a long time—and helped build Burlington as a lumber depot, so that the Central "had all it could

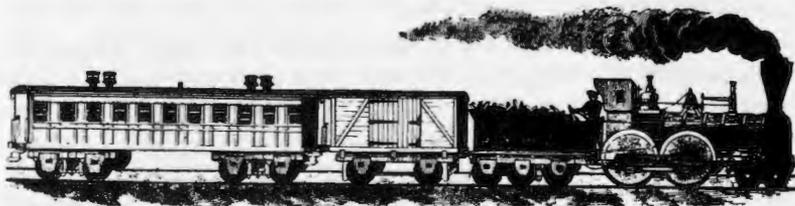
handle." Wilder developed the use of refrigerator cars for butter in 1851. Instead of holding butter in farm coolers until fall and then getting only twelve and a half cents a pound, farmers received summer prices and the railroad charged double rates. The St. Albans depot, shipping about a million pounds in 1851, exported 2,700,000 pounds by 1858 and held that level for the next decade. Cheese production increased from 500,000 pounds in 1851 to 1,300,000 pounds in 1858 and 2,000,000 in 1860. The railroad, by opening city markets for butter and cheese, speeded the shift from woolgrowing to dairying.²⁸

The slate and marble quarries along the Rutland and Washington line, the "original inducement to build the road," according to Wilder, did not at first develop the expected tonnage. Then with Frederick E. Woodbridge managing for the receivers, Wilder told the quarrymen to name the rates, informing them that the railroads and the quarries "were really partners, and . . . should make a fair division of the business." They agreed on a schedule and the volume increased.²⁹

In 1853 Vermont boasted that its railroads were fueled more cheaply than in other states. Wood was delivered at the tracks for \$2.50 a cord. Managers estimated that the engines consumed wood at twelve cents per mile, or twenty-one miles per cord. Ten years later the price had doubled and coal could compete, although Vermont still had plenty of winter-idle farmers to chop and haul wood. A little coal had been used in small blast furnaces and smithies. Smith and Wilkins brought the first coal to Burlington for domestic use in 1851 on the New York and Canada canal boats.³⁰ The steamboats, farther from cheap cord wood than the trains, and connected to the mines by water, first used coal in 1858, on the *United States*. The next year Lehigh and Lackawanna anthracite was advertised in Rutland. Only two families in Brattleboro used "stone coal" in their homes in 1861. Two years later the Central had 116 tons on hand, the Passumpsic 41.25 tons, and the Rutland and Washington, \$300 worth. By 1870, 20,000 tons were brought to Burlington. The gradual switch was a matter of cost, not conservation, even after the mid-seventies, when thanks to the hungry locomotive, charcoal burners, and heating, only a quarter of the state remained wooded.³¹

Railroads stimulated new business and bankrupted old, moved village sites, increased and decreased land values, and relegated stage and wagon transport to feeder roads. The public, admiring the exciting progress of the iron horse, shed few tears for the old, slow ways. On March 3, 1853, American railroads in operation became post roads to the unwept loss of stage conductors. Stagers and innkeepers not in railroad towns enjoyed a brief spurt of prosperity before losing their mail contracts, baggage and weary travelers. In 1848 Constock's Red Bird Line charged about sixteen dol-

Rutland & Burlington Railroad.



Independence Day!

ODD FELLOWS, MASONS, & SONS OF TEMPERANCE

CELEBRATION!

AT RUTLAND,
JULY 4TH, 1853.

FIRE WORKS IN THE EVENING!!

EXTRA TRAINS

Will be run to Rutland in the morning, and from Rutland in the evening, after the close of the Fire Works, of which due notice will be given.

When tickets are purchased at the Offices, **HALF FARE** will be received to and from all Stations on the Road.

Full Fare will be exacted in the Cars.

JOHN S. DUNLAP,
Superintendent.

SUPERINTENDENT'S OFFICE, }
Rutland, June 20, 1853. }

lars for making the Albany-Montreal run on the Vermont side of the Lake in forty hours. On the June day in 1848 "when the cars commenced running to Bethel . . . Pierce, Paul & Co.'s stage was at Cottrill's [in Montpelier] bringing passengers [from Bethel] who left Boston that morning." Such extraordinary exertions were signs of desperate pride. Soon thrust aside by the cars, the stage men went west where the horse was still appreciated, or retired to the less lucrative runs in the hill country, where you had to "get a horse." Mahlon Cottrill, Otis Bardwell, E. Foster Cooke, William M. Field, Chester W. Chapin, B.F. Cheney and others, "when their specialty was absorbed by railroad transit . . . became Presidents of railroads, express companies, builders of cars, and proprietors of palatial hotels." Most turnpikes had already died, but the Winoski Turnpike Company waited until the Vermont Central charter provided \$18,000 for its franchise.³²

Plank roads, cousins of the turnpike and billed as the "Farmers' Railroads," were chartered by the score during the fifties to connect hill towns to valley rails. Timber was cheap; plankways could be built for \$2,000 per mile; and a horse could haul three times as much on the planks as on macadam or dirt. But wooden roads needed cover as much as wooden bridges, and they also required protection from moisture below. Gradually, the planks rotted or jounced apart and the experiment was abandoned.³³

The railroads doomed Lake Champlain traffic to moving cheap and heavy freight and tourists, though it continued to flourish until the completion of the rail link on the west side of the Lake at Ticonderoga in 1876. Lake trade meant through business in 1848; by the end of the Civil War it meant pleasure and local freight. In 1848 many shore towns had good docks and warehouses. Except at a few ports like Burlington, they gradually rotted in disuse. Small sailing craft did not disappear from the Lake until the 1870's. Thomas H. Canfield of Burlington and the Rutland Railroad operated the twenty lake boats of the Merchants' Line from 1852 until after the Civil War, and hauling Canadian timber for growing American cities provided a staple for lake shipping for the rest of the century.³⁴

As Boston's second move to win the West, its route to the Great Lakes through Vermont failed. If the vision of city investors had not been mistimed by railroad fever and they had recognized the odds against their gambit, slow and sober building would have given Vermont its main lines later, with less waste and loss. The Fairbanks family of St. Johnsbury demonstrated this with their Passumpsic line. As soon as it reached their town in 1850, the pace of construction slowed down. The Passumpsic reached Newport in 1863 thirteen years later and paid steady dividends,

in spite of low rates on scales. The farmers' well-based fear of western competition could be dissolved only by following the maxim, "if you can't lick 'em [with railroads], join 'em." As it was, nothing could "beat the cars." They transformed the human outlook. Their dominance over politics and society as the century wore on became as complete in Vermont as over transportation.³⁵

NOTES

¹ *Burlington Free Press*, July 10, 1846. DeWitt Clinton Clarke, editor of the *Free Press*, took an unusually sympathetic stand toward the laborers on this explosive issue. "These . . . poor men," he wrote in the same issue, "ought to have been promptly paid. Holding all resistance to the Laws, and all illegal combinations for the purpose of redressing even real wrongs, in utter abhorrence, and believing that they should be suppressed, . . . yet . . . these laborers . . . were not the first wrongdoers . . . those who, by injustice, incite others to a violation of the laws . . . should . . . share the responsibility of the crime, however unequal may be the legal allotment of punishment."

² *Ibid.*, September 11, 1846.

³ *Ibid.*, October 2, 1846 and March 28, 1879 (Hatch); and Raymond E. Bassett, "A study of the promotion, building and financing of the Vermont Central Railroad to July 1, 1853," (M.A. thesis, University of Vermont, 1934), p. 71. No first hand account has survived from the workmen's or Roman Catholic priest's point of view.

⁴ See Mrs. Dillon's obituary in the *Burlington Free Press*, January 11, 1872.

⁵ Sheldon Mss., Daniel L. Wells to Henry L. Sheldon, January 19, 1848, Sheldon Museum, Middlebury, Vt.

⁶ Eastman Mss., D.A. Danforth to C.G. Eastman, November 15, 20, 1843, Collection of the Vermont Historical Society, Montpelier, Vt.

⁷ Edward C. Kirkland, *Men, Cities and Transportation: a Study in New England history, 1820-1900* (2 vols., Cambridge: Harvard Univ. Pr., 1948), "A route to the lakes," I, 159-191. The outlines of the Vermont railroad story were sketched by Harold F. Wilson, "The coming of the railroad," in *The Hill Country of Northern New England* (New York: Columbia University Press, 1936), especially pp. 40-48.

⁸ William J. Wilgus, *The Role of Transportation in the Development of Vermont* (Montpelier: Vermont Historical Society, 1945), p. 68; *Vermont Laws* (1849), pp. 69-79; and Jim Shaughnessy, *The Rutland Road* (Berkeley, California: Howell-North Books, 1964), p. 7.

⁹ Lewis D. Stilwell, *Migration from Vermont* (Montpelier: Vermont Historical Society, 1938), p. 219; Message of the Governor to the General Assembly, 1867 (Montpelier: 1867), pp. 11-12. *Rutland Herald*, February 5, 1852; and *Montpelier Watchman*, April 21, 1853.

¹⁰ Sheldon Mss., Josiah Hawkins to Charles Linsley, August 10, 1860; and H.P. Smith and W.S. Rann, eds., *History of Rutland County, Vermont* (Syracuse, N.Y.: D. Mason, 1886), pp. 404-405.

¹¹ Pawlet: *Family Journal* quoted in the *Rutland Herald*, May 14, 1853. Poulney: "W", *ibid.*, March 6, 1868. Rupert: "The journal of Jonas Wilder, railroader," *Vermont Quarterly*, Vol. 14, (July, 1946), pp. 129-130. Royalton: Daniel Tarbell, Jr., in *Woodstock Age*, December 19, 1853.

¹² Sherbrooke (Quebec), *Canadian Times* quoted in the *Rutland Herald*, January 26, 1855.

¹³ Abby Maria Hemenway, ed., *Vermont Historical Gazetteer* (5 vols., Burlington, 1867-91), III, 1114-1115, extracting directors' and stockholders' reports; *Burlington Free Press*, March 2, 1849; and *Montpelier Watchman*, January 1, 1852.

¹⁴ Report of the Investigating Committee of the Vermont Central Railroad Company to the stockholders, July 1, 1853 (Boston: 1853), pp. 76, 143-144, and 153; *Montpelier Watchman*, March 4, 1852, May 19, 1854, and January 28, 1863; Manuscript of the United States Census (1860), Manufacturing, Northfield; Thelma M. Kistler, *The Rise of Railroads in the Connecticut River Valley* (Northampton, Mass.: Smith College Department of History, 1938), Smith College Studies in History, XXII, 227-230; and Julia W. McIntire, *Green Mountain Heritage: the Chronicle of Northfield, Vermont* (Canaan: Phoenix Publishing, for the town of Northfield, 1974), pp. 134-186.

¹⁵ *Vermont Central Investigation* (1853), pp. 76 and 153; *Montpelier Watchman*, May 9, July 25, August 1 and 8, 1850, and July 24, 1863; *Middlebury Register*, March 14, 1855; and Sheldon Mss., Salmon Wires to Frederick E. Woodbridge, May 25, 1859.

¹⁶ *Burlington Free Press*, September 24, and December 10 and 31, 1847, January 28, February 25, March 16 and July 6, 1848, and July 6, 1849; and Sheldon Mss., L.C. Dodge, Superintendent, to Charles Linsley, January 13, 1851 and telegram blank used September 25, 1851.

¹⁷ *Montpelier Watchman*, January 4 and 11, and May 17, 1849. January 8, 1852, and February 3, 1854; *Hemenway, Gazetteer*, IV, 1042; *St. Johnsbury Caledonian*, March 20, 1852; *Middlebury Register*, February 2, 1853; *Rutland Herald*, January 26, 1855, July 12, 1864, and July 29, 1865; *Windsor Vermont Journal*, November 19, 1864; and M.R. Cabot, *Annals of Brattleboro* (2 vols., Brattleboro: E.L. Hildreth, 1921), II, 615-617, on its operation, 1850-1865.

¹⁸ *Hemenway, Gazetteer*, III, 1115; and Sheldon Mss., C.D. Wyman to Charles Linsley, February 6, and 15, 1851.

¹⁹ *New York Times* clipping dated December 25, 1927, in Piny Fisk Collection, Princeton University Library; Seymour Dunbar, *History of travel in America* (4 vols., Indianapolis: Bobbs-Merrill, 1915), III, 1045.

²⁰ See Historical Records Survey, *Index to the Burlington Free Press, 1848-1870*, (10 vols., Montpelier, 1940-1942), "Fatal accidents" and "Railroad Accidents".

²¹ *Compiled Statutes* (1851), pp. 201-202.

²² *Montpelier Watchman*, November 15, 22, and 29, 1849.

²³ "Journal of Jonas Wilder," 128; *Hemenway, Gazetteer*, III, 1115; Sheldon Mss., Lucius Bigelow to Charles Linsley, May 13, 1851, and Henry L. Sheldon to E.A. Chapin, October 8, 1861; *Montpelier Watchman*, July 4, 1849 and May 30, 1850; and *Rutland Herald*, July 13, 1855.

²⁴ Railroad Commissioner, *Annual Report* (1858), pp. 7 and 12-13; *Rutland Herald*, January 30 and February 13, 1851, December 4, 1852 (G.W. Strong, "The Railroad Affair at Montpelier"), and March 28, 1856; *Montpelier Green Mountain Freeman*, July 14, 1859 (sleeping cars); *Montpelier Watchman*, January 19, 1851; and *Middlebury Register*, November 29, 1854.

²⁵ Henry V. Poor, *History of the Railroads and Canals of the United States* (New York: J.H. Schultz, 1860), p. 71; Railroad Commissioner *Annual Report* (1858), pp. 21 and 97-98; *Montpelier Watchman*, February 13 and 27, 1851 and February 12, 1852; *Brattleboro Eagle*, February 16, 1852; and E.C. Kirkland, *Men, Cities and Transportation*, I, 190.

²⁶ *Rutland Herald*, August 13, September 10, November 5, 1857, and April 21 (quoting *St. Albans Democrat*), August 13, September 10, and November 5, 1859.

²⁷ Traveler report of a 44-car cattle train, quoted in *Montpelier Patriot*, December 14, 1848; weekly quotations by states in *Montpelier Watchman*, for 37 weeks listed between January 3, 1850 and January 2, 1851 totaled 10,510; and *St. Johnsbury Caledonian* report of 600 head shipped from *St. Johnsbury* for \$1,500, quoted in *Rutland Herald*, February 23, 1855.

²⁸ "Journal of Jonas Wilder," 123-126; *Rutland Herald*, January 13, 1859 and June 12, 1868 quoting H.M. Burt, editor of the *New England Homestead*, in *St. Albans Messenger*, describing the *St. Albans* dairy market and tabulating its butter and cheese shipments, 1851-1867; and Edward Hitchcock, *Report on the Geology of Vermont: Descriptive, Theoretical, and Scenological* (2 vols., Claremont, N.H.: Claremont Manufacturing Co., 1861), II, 923.

²⁹ "Journal of Jonas Wilder," 127-128.

³⁰ In William T. Davis, ed., *The New England States* (4 vols., Boston: D.H. Hurd, 1897), III, 1539.

³¹ *Vermont Central Investigation* (1853), p. 128; O.J. Ross, *Steamboats on Lake Champlain* (Albany, N.Y.: Delaware & Hudson, 1930), p. 105; *Rutland Courier*, July 27, 1859; *Woodstock Age*, October 4, 1867; and Railroad Commissioner *Annual Report* (1863), pp. 42, 82 and 105.

³² Seymour Dunbar, *History of travel in America*, III, 1116; *Montpelier Patriot*, June 29, 1848 (Boston stage); G.A. Merrill, "Railroads and Rutland County," in *Centennial of Rutland County, 1881* (Montpelier: Argus and Patriot Book Print, 1881), p. 57; E.C. Kirkland, *Men, Cities and Transportation*, II, 399 and 472-484, gives other examples; and *Vermont Laus* (1843), 47.

³³ William M. Gillespie, *Manual of the Principles and Practice of Roadmaking* (1847; 10th ed. with large addenda by Cady Staley; N.Y.: A.S. Barnes, 1871), pp. 230-253; promotion in *Montpelier Watchman*, February-April 1849, August 2, 1849, February 27, 1851 (Richford), and February 27, 1851 (Hinesburg); and *Rutland Herald*, May 14, 1853 (Chittenden).

³⁴ Gertrude E. Cone, "Studies in the development of transportation in the Champlain Valley to 1876," (M.A. thesis, University of Vermont, 1945), and O.J. Ross, *Steamboats on Lake Champlain* cover the period. Morse and Gaston's *Manual of American geography* (N.Y.: 1856), p. 30, reported 52 Vermont-owned vessels on Lake Champlain, capitalized at \$130,000 with a capacity of 6,141 tons. Appleton's *Annual Encyclopaedia* (1860), p. 727, listed for Vermont lake commerce 7,744 tons capacity, \$2,732,000 worth of imports, mainly British goods through Canada under reciprocity, and \$784,000 exports, two-thirds of which had been produced abroad.

³⁵ Poor, *History of the Railroads*, p. 71.