

# Sylvester Marsh 1857 - 1885

1000

**Mountain called Agiocochook** where by legend “Here the Great Spirit will dwell, and watch over his favorite children” – Native Americans believed climbing to its summit would bring death to the invader.

- *Story of Mt Washington by F. Allen Burt*

1821

**Ethan Allen Crawford** lays out a path to the summit that **Horace Fabyan** would improve to a bridle path for horse riding climbers. This **route to the top** would be mostly followed by the Cog Railway track.

- *The Mount Washington Cog Railway: Climbing the White Mountains of New Hampshire by Bruce D. Heald*

1852

**July 28th**

The **first Summit House opened** - 53 people came - 12 stayed overnight - Enlarged in 1853 to 64'x 24' with gable roof for second story. The building was “bound to the rocks by 2-inch cables running over the roof and cemented to the rocks.” All built before the Carriage road.

- *Story of Mt Washington by F. Allen Burt*



*Tip-Top House, Estes Tower & Summit House (1854-55)  
- NH Then & Now*

1853

**Tip Top House is built** - only one of original summit structures still standing.

**August 23rd**

**Jefferson Davis** then President Franklin Pierce's Secretary of War **visits** the top of Mt Washington and stayed at the Summit House. He would become president of the confederacy.

- *Story of Mt Washington by F. Allen Burt*

1854

**First observatory tower is built** on Summit - includes crank elevator - lasts two years. The tower was built by Timothy Estes, a selectman from Jefferson, in 1854 for about \$600

(\$19,500 today). Visitors could be lifted to the top of the tower for 50 cents. By comparison, a meal at the Tip Top House cost \$1 (\$32.50 today).

- *1971 Mt. Washington Master Plan*

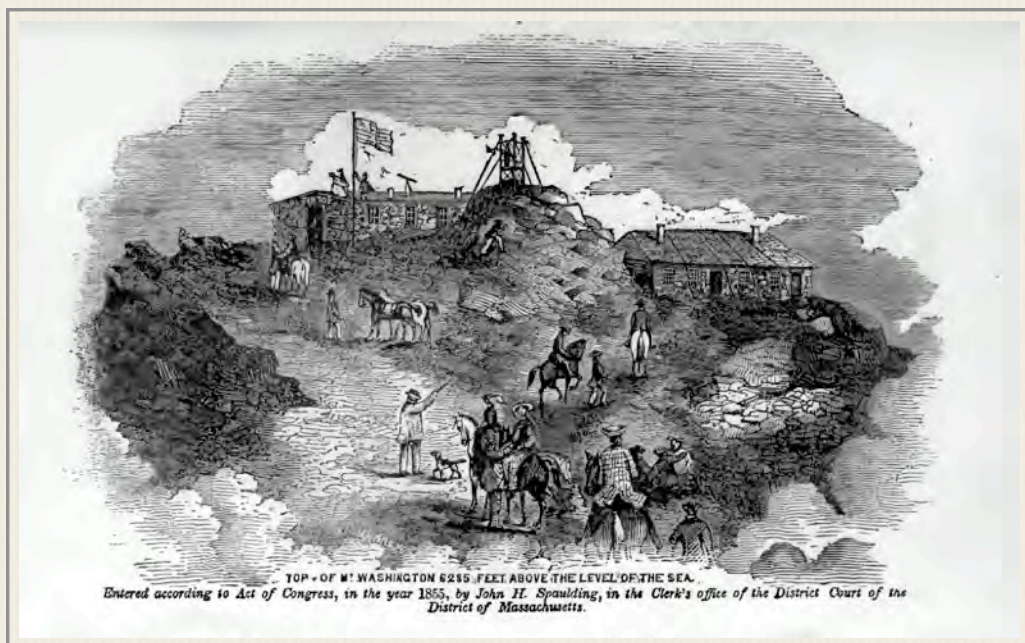
1855

**September 14th**

23-year old **Lizzie Bourne dies** when weather closes in during afternoon hike from Glen House with her cousin and uncle. Monument (*right*) erected to her memory



## 1857 - 1861



1857

**August 24th**

**Sylvester Marsh encounters bad weather** while climbing Mount Washington causing him to pursue the idea of a railway up the mountain.

- "Crazy Man" Sylvester Marsh and the Origins of the Mount Washington Railway by Robert W. Bermudes Jr. - *Historical New Hampshire*. Vol. 72, No. 2 (Fall 2019)

1858

**June 25th**

**Sylvester Marsh** applies to and **receives charters** from the New Hampshire legislature giving him the exclusive right to operate

steam railways on Mounts Lafayette and Washington for the next twenty years provided they are built and operating within the next five years. The Legislature thinks the idea impossible and suggests he amend his charter and continue his railway to the moon. "Be it enacted by the Senate and House of Representatives in General Court convened: That Sylvester Marsh and his associates, successors and assignees are hereby authorized and empowered to locate and construct the Railway of which said Marsh is the inventor and proprietor, being a three railed Railway in which the propelling power is obtained by means of a center cogged rack, to the summit of Mount Washington and the summit of Mount Lafayette in this State."

- <http://www.cog-railway.com/03timeline.htm>; Story of Mt Washington & State Charter

### Tracking the Marsh Charter's Progress New Hampshire Legislature

**Monday, June 21** – HOUSE: "Less than one hundred members were present at 3 o'clock. Several bills were read a third time and passed. Bill to facilitate the construction of carriage railways to the summit of Mt. Washington and Mt. Lafayette, which was recommitted to the Committee on Railroads."

**Wednesday, June 23** – HOUSE: "Mr. Campbell, of Amherst, from the Committee on Railroads, to whom was referred the bill to facilitate the construction of carriage railroads to the summit of Mt. Washington and Mt. Lafayette, reported the bill with amendments which were adopted, and the bill ordered to a third reading."

**Thursday, June 24** – SENATE: "An act to facilitate the construction of carriage railways to the summits of Mounts Washington and Lafayette, was read a third time and passed."

- *Lancaster (NH) Coös Republican* – Jun 29, 1858 pg 2

1861

**April 12th**

**Civil War begins** with Confederate forces firing on Fort Sumter in Charleston Harbor, South Carolina

- [www.history.com/this-day-in-history/the-civil-war-begins](http://www.history.com/this-day-in-history/the-civil-war-begins)

**August 8th**

Mt Washington **Carriage Road** officially **opens**

**September 1st**

Sylvester **Marsh receives patents** for method to apply power to rear axle and for a "lever pawl" or ratchet to engage a toothed wheel during ascent.

- *Story of Mt Washington* by F. Allen Burt

**September 10th**

**Patent No. 33,255** - "Sylvester Marsh, of West Roxbury, Mass. - **Improvement in Locomotive Engines for Ascending Inclined Planes**. - On the driving shaft is a pinion that engages with a large gear wheel attached to the axle of the rear running wheels. A gear on the same axle works into geared backs on a central rail.

The driving shaft is actuated by a connecting rod attached to an eccentric. The gear on the axle is prevented from being lifted out of the geared rack of the central rail by means of friction wheels attached to two spring plates which clasp the central rail.”

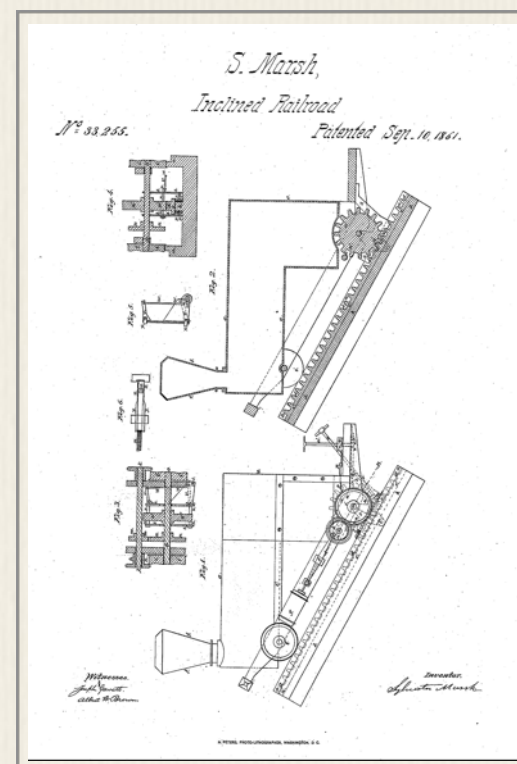
- *Annual Report of Commissioner of Patents 1863 - pg. 495*

## 1863

### June 26th

**Marsh Charter Renewed:** The New Hampshire legislature extends Sylvester Marsh's 1858 charter for railways up Mount Washington and Mount Lafayette “provided however, that if the railways contemplated in this act, or one of them, shall not be constructed and put into operation within five years from the passage of this act then this act shall be null and void.”

- *Charter Extension Act by New Hampshire General Court*

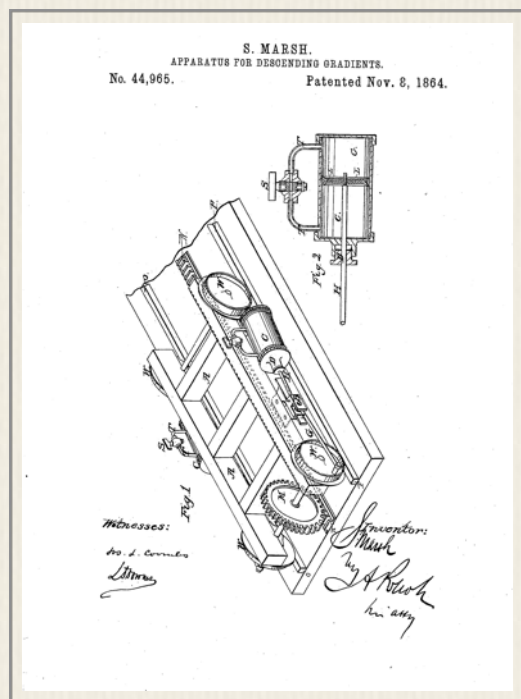


## 1864

### November 8th

**Patent No. 44,965** - “Sylvester Marsh, Chicago, Ill. - *Apparatus for Descending Gradients.* - The invention consists in coupling one or more wheels of a railway carriage or other wheeled vehicle, with a movable piston or cylinder filled with air or other elastic fluid, in combination with valves or other equivalent means for regulating the egress from and ingress to, or displacement in said cylinder, of its contents.”

- *Annual Report of Commissioner of Patents 1866 - pg. 889*



## 1865

### April 9th

**Civil War ends** - Robert E. Lee surrenders to U.S. Grant at Appomattox Courthouse, Virginia / last battle fought on May 13, 1865 at Palmito Ranch, Texas

- <http://www.civilwar.org/education/history/faq/>

Sylvester **Marsh forms** the Mount Washington **Steam Railway Company** with \$5,000 of his own money - Other early stockholders were Cheney Express Company, his son John Marsh, Nathaniel White, Boston, Concord and Montreal RR, Connecticut and Passumpsic RR, The Concord RR, and the Northern RR.

- <http://www.cog-railway.com/03timeline.htm>

### August 24th

**Marsh in Mountains Opposed:** “The rush of travel through here is so great that there are not hotel accommodations for it. The proprietors of the Crawford House, and also of the Profile, are going to increase their number of rooms, and there are new hotels suggested. Mr. Sylvester Marsh, formerly of Chicago, being one of the old residents of that city, or its first families, has purchased what is known here as the old Fabyan Place, comprising several hundred acres of land, and promised to build a large, new hotel on it. He also intends to put up nearby by a number of small cottages, which can be had for the seasons, as at Saratoga or Newport. The site is regarded as one of the best in the mountains; one of the first hotels was erected here years ago, and it was from this point that the first path was cut to the top of Mt. Washington. There seems, however, to be some strange fatality hanging over the spot as all the houses that have been erected here have one after another burnt down. Indeed, there is a tradition that long ago an old Indian chief curse the ground and prophesied in good Indian rhyme that “Him” would smite whatever the white man built or wrought on that devoted spot. What protection or insurance Marsh relies upon against the threatened mischief of the red Indian’s power, we have not heard. Mr. Marsh has also still other plans for the convenience of the visitors to this region. He has a charter for a railroad to the summit of Mt. Washington, and proposes to build it without delay. The carriage road on the other side of the mountain goes zig-zagging backwards and forwards up to the top – a method of going uphill which was chosen by Napoleon when he built the Simplon road over the Alps, and has been followed

## 1866

since on all high mountain roads. But this indirect and deceptive way of going at a thing, seeming to be moving one way when you are really going another, however Napoleonic it may be, does not agree with the straight-forward, and honest character of Mr. Marsh. He proposes to run his road directly up the mountain side to the top, and however steep the grade it is to be easily overcome by his new locomotive, that is to have a marvelous gift for climbing. Should parts of the way be perpendicular, or even leans towards you, it is all the same. Your locomotive pulls (*Ed. note – pushes actually*) your train steadily up any kind of ascent, and if necessary, it runs, and also the cars bottom-side up, like the flies on the ceiling. This is all accomplished by simply having a middle rail, and cog wheels on the engine and cars to run in it. The distance from the new hotel to the Tip Top House by rail will be about four miles, and the time taken in making the ascent is about one hour. Mr. Marsh expects to have the cars running to the summit in another seasons. There are some who rail against this Railroad, because they think it will destroy all the wildness and romance of the ascent, and who hope that the ghosts of the departed Indians that haunt the ravines and gorges, or the unspent curse of the old Sachem, may hurl the first train, with its new-fangled engine, middle rails, cog-wheels and all, a thousand fathoms, sheer over into the abyss. This seems to us, however, rather passionate and violent talk. We must not forget that this is the age of progress, and we shall hardly be able to restrain our applause when the Iron Horse makes the ascent and looks off from the summit of Mount Washington. – R.T.”

- *Chicago Tribune – Thu, Aug 24, 1865 pg. 3*

### September 8th

**Lizzie's Skirt:** “The rough monument of stones on Mount Washington, designed to commemorate the untimely death of Lizzie Bourne from exposure during a tremendous storm, within forth rods of the Summit House, has by some graceless scamp been surmounted with the fragmentary remains of an old hoop skirt.”

**Hotel, Cottages & Railroad:** “Sylvester Marsh of Chicago proposes to build a new hotel and several cottages near Mount Washington, and a railroad up the mountain.”

- *Springfield (MA) Republican – Fri, Sep 8, 1865 pg. 4*

### November 7th

**White Mountains Real Estate Sale:** “Sylvester Marsh, Esq., the present owner of the Fabyan Place at the White Mountains, was in (*Lancaster*) Saturday (11/4). He has just completed the purchase of the “Mount Washington House” property, more familiarly known as the Brabrook Place. Mr. Marsh is making heavy investments in White Mountain estates and is very sanguine as to the early construction and subsequent success of his steam railway to the summit of Mount Washington.”

- *Lancaster (NH) Coös Republican – Tue, Nov 7, 1865 pg. 2*

## 1866



**Locomotive #1 Hero built** with upright boiler (*left*) - World's first cog locomotive. It is the only engine in the fleet built by Sylvester Marsh.

- *The Mount Washington Cog Railway: Climbing the White Mountains of NH*

### February 7th

**Mount Washington Railroad Company:** “On the seventh of this month (February), the grantees of the Mount Washington Railroad Company held a meeting, in this city (*Concord, NH*), in Phenix Hotel. Sylvester Marsh, Onslow Stearns, Henry Keyes, J. Gregory Smith, George T. Rice and Nathaniel White, were chose a board of managers to take charge of the corporation. The next meeting will be held in Eagle Hotel, on the 21st inst. We hope the enterprise will succeed.”

- *Concord (NH) Independent Democrat – Thu, Feb 22, 1866 pg. 3*

### June 1st

**Railroad Needed in North Country:** “Pursuant to notice, the first meeting of the Coös Railroad Company was held at the Town House, in Whitefield, on Friday (6/1) afternoon of last week. The meeting as organized and conducted, partook both of the character of a general meeting for the discussion of the proposed extension, and of a business meeting of the Corporators. The attendance was large, and was made up from the sub-

stantial citizens of Lancaster, Northumberland, Whitefield, Carroll, Jefferson, Bethlehem, Dalton and Randolph, in N.H., and Lunenburg, Concord and Guildhall in Vermont. There was a decided sentiment manifested to make a practical effort, to secure railroad facilities. Ossian Ray, Esq., was called on for remarks, and in reply, indicated his desire to aid in the construction of a road. It was he said, demanded by the people and business of the region, and as for himself, he had got thoroughly tired of starting in the night in uncomfortable vehicles to accomplish the trip over the hills and through the mud to Littleton. He wanted to hear from all present in this work and thought that those who were capitalists and owners of vested interest should all take hold

to aid in procuring a (rail)road. His own wallet, he said, was troubled with the empty belly ache, but he had said he would give money to get a road from Littleton and he would do so now. Sylvester Mars, Esq., proprietor of the steam railway up Mount Washington, and owner of the Fabyan property, Col. Joseph Colby, and Mr. Chamberlain, formerly of the White Mountain Railroad, all endorsed the necessity of securing a road.”

- *Lancaster (NH) Coös Republican* - Tue, Jun 5, 1866 pg. 2

### June 7th

**And so It Begins:** “We understand the Company having in contemplation the construction of a Railroad from the base to the summit of Mount Washington is fully organized, and that the work of building the road has actually commenced. The Directors are Sylvester Marsh, John E. Lyon, N. G. Upham, Onslow Stearns, Nath’l White and Henry Keyes, Mr. Marsh is President of the Corporation, and constructing Agent. Wm. P. Crooker, of this place (Laconia) is the Engineer. The invention for ascending steep grades by steam, is secured to Mr. Marsh by patent right and will now no doubt be thoroughly tested. The engine is being built in Boston, and is to weigh about four tons, and will commence running for construction of the road next month (July). A gear connecting with a central rail is to operate the train at a speed of four miles per hour. Cylinders upon the sides of the car with piston rods connected with the running gear, and regulated by atmospheric air in the cylinders, is to constitute one of the modes of stopping the train, or regulating its speed in descending form the summit.”

- *Laconia Democrat article in The Amherst (NH) Farmer’s Cabinet* - Thu, Jun 7, 1866 pg. 2

### June 9th

**New Scheme? No Problem:** “The preparations for the coming season (1866) at the White Mountains are on a much larger scale than usual. There is a new scheme of interest to White Mountain travelers. This is no less than the construction of a railroad from the west side to the summit of Mount Washington, to be used in connection with a new hotel upon or near the site he plan is that the new hotel shall be the largest and best among the mountains; and be approached by a continuation of the White Mountain railroad from Littleton through Whitefield to Jefferson; that a turnpike road shall be built to Cold Spring on Mount Washington, and thence a railroad, of three miles in length, to the summit. It is said that no grade need be more than thirty degrees, while, under new patents, engines running by gear and not by friction, can be made to haul cars up an ascent of forty-five degrees with ease and safety. The plan is all ciphered out on paper, and its principal promoter, Sylvester Marsh, is confident that it can be carried into execution before July of next year (1867). At Thompson’s, however, on the Glen House side, they snap their fingers at the scheme, and do not fear the threatened rivalry to their carriage road.”

- *Springfield (MA) Republic* - Sat, Jun 9, 1866 pg. 2

### July 9th

**To Friend Chase:** “To those who have never visited Mt. Washington, I would say, go at once. To those who have been I would say, go again. To those who have gone again, I would say, keep on going. The Mountain will soon be much easier to access than at present. An enterprising company has begun the construction of a railway to the summit, to be worked by a stationary steam engine and cables, like the railway at Mt. Holyoke, near Northampton. This will prove a great boon to the weak nerved and timid, who shrink from the craggy bridle path and the uneven carriage road. But the railway will run up a ravine in the northern face of the mountain, thus missing the fine views to be obtained from the other routes. - A.”

- *The (Lyndon) Vermont Union* - Fri, Jul 13, 1866 pg. 2



1866

### July 16th

**Hero Passes through Plymouth:** “A Plymouth correspondent of the *Boston Journal*, says: ‘The engine for the steam railroad up Mount Washington passed up the Boston, Concord and Montreal Railroad yesterday (7/16). This invention, or, perhaps, more correctly stated, the application of a principle in mechanics by Sylvester Marsh, will be of great value in many ways besides overcoming the steep hills of Mount Washington and carrying in comfort and safety a carload of passengers up and down its fearful grades. The work is progressing. The old White Mountain Notch is alive with Mr. Marsh’s men, constructing for a first trial a section of this railroad and preparing for the laying out of the immense hotel (*Fabyan House*), which is to be the starting point of the mountain railroading. I shall give you an account of the trial when it occurs.’”

- *Manchester (NH) Weekly Union* – Tue, Jul 17, 1866 pg. 1

### August 28th

**Up Mt. Washington by Steam:** “Tomorrow is the appointed day for the public trial of the new steam railway up Mount Washington, and the railroad men of all the region round about are assembling today (8/28) at the White Mountain House, five miles below here, and will drive in carriages tomorrow morning to the place of exhibition. I came to the mountain with the expectation that the trial was to occur today, and cannot well remain longer; so I have been out this morning and had a trial, or exhibition, on my own hook. Some five hundred feet of track have now been laid, and sufficient tests have already been made to warrant the belief that another season will see a steam carriage ascending and descending Mount Washington with perfect ease and safety. The place chosen for the commencement of the railway is in the valley of the Ammonoosuc, at the foot of Mount Washington proper. A new carriage road has been opened from the stage road, about halfway between the White Mountain House and the Crawford House. After leaving the stage road the carriage road to the railway follows up the Ammonoosuc valley, and gives the finest view of the whole range of prominent mountain peaks to be had from any one point; and the track commences its steep ascent directly over the bed of the Ammonoosuc, on trestle work, with a grade of 1,700 feet to the mile. Just before coming in sight of the station the shrill whistle of the locomotive “*Mount Washington*” started us not a little, and seemed quite out of place there in the forests and mountains and so far away from “humanity’s reach.” I found the locomotive fired up and ready to move up the mountain as far as the track is completed, some five hundred feet. A platform car with rude seats stood on the track, attached to the engine, and as soon as our party, consisting of some eight or nine gentlemen and ladies, had taken their seats, the locomotive commended its “chug,” “chug;” and up we went, at a slow speed at first, which was afterwards increased to good headway, and thus we went up and down the track, which lies, as it were, against the mountain side rather than on it, both the locomotive and the car being under the most perfect and absolute control of the engineer, who stopped the ‘train’ and started it at will, repeatedly, at one time leaving us standing for several minutes, and then moving up and down, and stopping instantly; and holding the car apparently as solid and sure as on an ordinary railway.

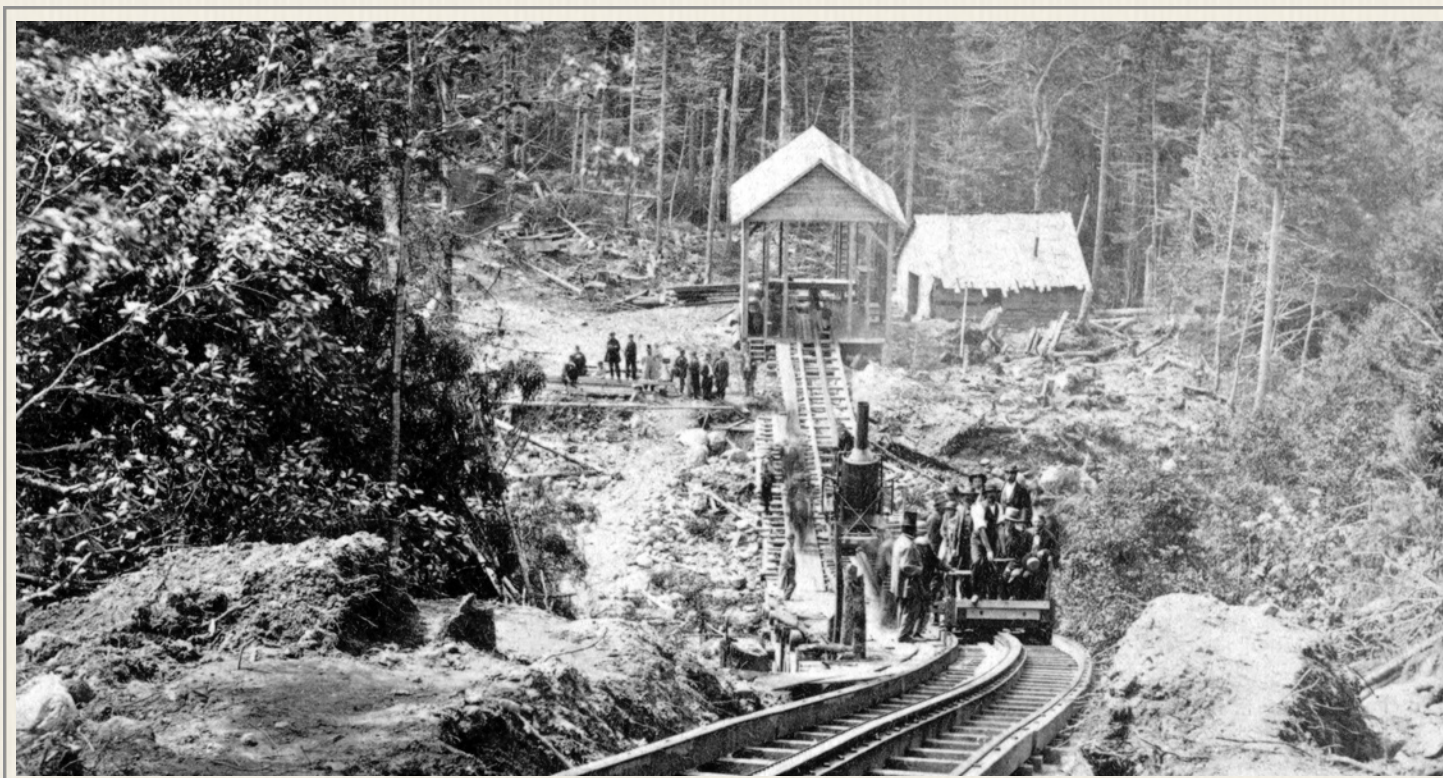
“The whole distance to be traversed by the railway, from the point where it commences to the top of Mount Washington, is three miles, the whole rise being about 4,000 feet, and the steepest grade being at the rate of 1,700 feet to the mile. The rail used is the same as the old fashioned “strap rail,” and midway between the ordinary rails is a track of wrought iron pins or rolls, one and a half inches in diameter, and four inches long, set four inches apart, in three-eighths inch angle iron wrought into an angle of 3 by 3 inches, holding the pins or rolls firmly in their places. Into these pins the teeth of the driving cog-wheel of the engine works, each tooth of the wheel striking between each pin, being practically the working of one cog-wheel into another. The engine, weighing some four tons, is rated at twenty-five horse power, and with seventy-five pounds of steam will drive ten or twelve horse power, forth pounds of steam being as high as has yet been carried. The cost of the engine, which was built by Messrs. Campbell, Whittier, and Co., of Roxbury, Massachusetts, was \$3,000 (~\$51,500 today), and it is so constructed that by the use of “union joints,” the boiler is always kept in an upright position, no matter how steep the grade, or how great the inclination of the trucks of the car.

“The enormous propelling power necessary to run up the required steep grade is obtained by the process of what is called ‘gearing down,’ that is, a twenty-four inch gear working into a six inch gear, the engine making four revolutions to one of the driver, thus securing an immense power and purchase, which not only propels the train forward, but holds it immovable, when desirable to do so, on the track, at any desired point or place. An additional safeguard for holding the cars at a standstill is that of the atmospheric brake, and so successful was the application of this power that the engine was several times detached from the car on which we rode, leaving

it with its eight or nine persons several feet up the grade, to work our way down with this brake, which we did most successfully, it being operated as easily as one could turn a thumb-screw. We rode up and stopped, and down and stopped, and had the fact established to our wondering eyes, and ears, and senses, that a steam engine and cars can be run up and down Mount Washington, or any other mountain, at a fair rate of speed and with perfect safety; and after what I have seen to-day, I venture the prediction that in a short time we shall see the Hoosac tunnel abandoned, and trains of cars running over rather than through the mountain. And so practically of other enterprises, to say nothing of new projects and plans of up-and-down-hill steam locomotion; and the same generation which witnessed the advent of the iron horse, welcoming him as a missionary of civilisation and progress, will not only listen to his heavy breathing along our valleys, and our plains, but will hear his shrill neigh from our hill-sides and see him shake his fleecy mane amid the clouds of the mountain-top. The track of cogs or pins for the railway is all made by the Boston Machine Company, and is wrought from gun-iron, the track when completed weighing twenty pounds to the foot, and the whole of it being hauled by teams from Littleton, twenty-five miles distant.”

The practicability of the scheme is now so fully established that there seems to be only one question left, and that is the question of cost and compensation. It is estimated that it will cost some \$20,000 per mile to build the track, and that the three miles of road, with the necessary rolling stock, depots, etc., will cost some \$100,000. This is probably a low estimate, but I certainly do not see how a portion of the road, and quite a large portion, too, can be much more expensive than the difficult parts of some of our common railroads; but how good an investment the road will likely to be, I am not at all competent to judge. The originator and inventor of this new railway and its attendant enterprise is Mr. Sylvester Marsh, now of Littleton, N.H., but formerly of Chicago. He has given much time and attention to the matter, and his “experiment” is an experiment no

***Proof of Concept:** Railroad executives and invited guests see firsthand how Sylvester Marsh’s idea works and pose for a picture. Marsh is first in line on the incline ramp in top hat holding overcoat.*



longer. The railway is now in the hands of a company, who have already purchased the site of the old Fabyan House, with the view of erecting a large hotel there for the accommodation of guests, which this new and novel plan of mountain traveling will call mountain-ward. Some are already predicting that the completion of this railway will have a tendency to damage both the Crawford and Glen Houses, the former by drawing away its patronage to the proposed new hotel, and the latter by inducing the mountain pilgrims to make their trips up and down almost entirely on this side of the mountain, either by the railway or on horseback from the Crawford as now. That the success of the enterprise will revolutionize to a considerable extent the old modes of mountain climbing there is little doubt, but just what shape the revolution will take it is as yet too early to determine. The railroad men who go out there tomorrow will get some new ideas perhaps, and go home prepared to invest in this enterprise, and perhaps to project new enterprises of a similar kind. At all events they cannot fail of seeing for themselves that our hills and mountains can be climbed successfully by the iron horse and it will not be surprising to see measures taken at once for putting him to a more general hillside and mountain service. The appliance of cogs to a railway track is by no means a new idea, the very first railroad built in England having used them. But they are now discarded as unnecessary appliances, and comparatively useless, there being sufficient friction between the rail and wheels for all practical purposes on an ordinary railroad. The trial of this railway tomorrow, has increased interest from the fact that a trial is being had at about the same time of steam railway, on a different principle, however, at Mont Cenis, in Switzerland. The projectors of that one, however, only propose to rise a grade of four hundred feet to the mile, and to climb the mountain by zig-zag track to save grades. They get their power by what is called a “V friction rail,” occupying the same position between the rails that Mr. Marsh’s cog rail does. The rail is in shape like two V’s, with the sharp points turned together, the open points pointing upwards and downwards respectively, the friction required for holding the train to the track being obtained by brake-power, obtained by means of leverage pressure between the outside rails and the middle, or V rail. Apparently well posted engineers tell me that if the track can be kept dry and entirely free from grease the grades of four hundred feet to the mile can, doubtless, be overcome, but in case of a wet or greasy condition of the V track, the result would be “that the devil would take the hindmost,” very suddenly. The novelty of this manner of mountain climbing, now that the locomotive is actually running, will draw many to see the operation for themselves, but until a better road is made from the stage road to the railway station, the journey can only be made at the expense of much profanity and large supplies of liniments, salves and plasters. We had a profane driver, who did the swearing for us, but made our own applications of liniment and the like, and I noticed that our party did a good deal of “heavy standing round” for several hours after the trip, and that sitting down was quite an artistic operation. – C.W. B.”

- *Springfield (MA) Republican - Sat, Sep 1, 1866 pg 1* & *The Anglo-American Times (London) - Sat, Oct 20, 1866 pg 10 & 11*

### August 29th

**Proof of Concept:** Engine No. 1 *Hero* makes several demonstration runs on a rustic, temporary track. Construction started on the track and approximately 1/2 mile was built that year. A veteran of the Boston, Concord & Montreal Railroad, Job J. Sanborn is named manager of construction.

- <http://www.cog-railway.com/03timeline.htm> | *Story of Mt Washington*

**A Perfect Triumph:** “Wednesday (8/29) at noon the “*Mt. Washington*” Engine made her experimental trip in the presence of over a hundred spectators among whom were some of the most practical and scientific railroad men of New England. It was a perfect triumph, and no one left “Ammonoosuck Station” with a doubt as to the practicability or safety of running steam cars to the summit of Mount Washington. The “safety” is put beyond question – the construction of the passenger car being such that it is stopped on the rail or let down the rails without the aid of the engine, and being always disconnected with the engine is at the control of the brakeman – and your readers can judge of the practicability of the project when they are told the track is not built up a grade of seventeen hundred feet to the mile, the highest grade over the whole route – the average grade being 1300 feet. The road is now operated over about seven hundred feet of track and over forty persons were carried at a time up and down this hill, stopping anywhere and going back and forth as if the road were level. It is difficult to describe in so brief a letter the way this is accomplished. But imagine a common track with an iron ladder lying midway of the rails, the rounds of the ladder four inches apart, and a cog wheel rolling up this ladder (the common wheels of the engine and cars, running on the rails,) and perhaps you can get some idea of the thing. The engine *pushes up* the car, and of course follows it in coming down; weighs four tons, has its boiler hung like a ship’s compass to keep it “right side up,” and is a perfect masterpiece of invention throughout. The distance now run, as before stated, is a little over seven hundred feet. The entire railway when finished (an





about one year we hope) will be a trifle over three miles. Imagination can hardly reach the amount of obstacles to be overcome in order to accomplish what has been already done. And the credit, the praise and the glory are all chiefly due to one man, Sylvester Marsh, a native of Campton, (NH) and who now has a summer residence in Littleton. Mr. M. in his youth went West, became a wealthy man through his inventions, and has now over seventeen thousand acres of land extending from the top of Mount Washington some five miles westerly. He has the entire charge of this work aided by the railroads interested, and seemed to be highly pleased that all could realize what many had called his visionary if not insane schemes – the dream and ambition of his life. There is another man deserving of more notice than I have time to give him, as encouraging this matter, Mr. J. E. Lyon, President of the Boston, Concord and Montreal Railroad, for he has been the constant aid and advisor of this project from the beginning, some four years ago (1862), but this only furnishes an additional test of his fitness for the place he fills, to promote the welfare of a road that has no equal in mountain and water scenery. Many of the railroads in this State, Massachusetts, Connecticut and Vermont were represented by names I cannot give, save only those of the Concord: By directors Adams, Parker, Messer and Chase, S. N. Bell, attorney, and J. A. Weston, civil engineer, but who altogether made up a party that it was a delight to accompany, and one which will in the future add greatly to the final completion of an enterprise and literally crown our hills with the highest honor to which steam has yet attained. – B.”

- *Manchester (NH) Mirror and Farmer* – Sat, Sep 8, 1866 pg 4

### September 3rd

**Oops, Not Yet:** “A railway has been built to the summit of Mount Washington, with a cog-rail in the centre, and a locomotive has successfully achieved the ascent. The grade of the road is 1700 feet to the mile, but it is easily overcome by means of the cogs on the centre rail and powerful brakes applied whenever necessary. The forward wheels are only half the diameter of the hind ones. A car with fifty passengers was taken up at the rate of three miles an hour. The charter gives Sylvester Marsh the exclusive right for twenty years to build and run such rail roads upon Mounts Washington and Lafayette.” (Ed. note: only 500-feet of 3.3-miles completed)

- *Bangor Daily White and Courier* - Mon, Sept 3, 1866 pg 3

## 1866 - 1867

### September 26th

**Steam Railway Up Mt. Washington:** “The trial trip of the steam locomotive up Mt. Washington, was made last Wednesday (9/26), in the presence of a number of railroad gentlemen. The length of line actually laid was but 500 feet, but the grade was as severe as any that will occur. The track makes an angle of 15 degrees with the horizontal plane, which gives a rise of one foot in three. The engine will draw fifty times its own weight, and did draw a passenger car with forty passengers, with entire ease. The road will be an undoubted success, and further investments of capital in a new hotel on the Fabian Place, and in other ways, will speedily be made.”

- *St. Johnsbury Caledonian* - Fri, Sep 28, 1866 pg. 1

## 1867

### January 15th

**Patent No. 61,221** - “Sylvester Marsh, Littleton, N.H. - Cog Rail for Railroads - Parallel bars of angle iron, at suitable intervals, afford bearings for the rollers, which form cogs in the rack, or cog rail, with which the gear of the car truck engages in ascending heavy grades.”

- *Annual Report of the Commissioner of Patents 1869* pg. 484

### January 19th

**Hand-Mangling:** “Frank Palmer, of Littleton, a lad of 13, had three fingers sawed off, and Sylvester Marsh, Esq., of the same place, had all the fingers of one hand badly mangled, while at work with circular saws.”

- *Manchester (NH) Mirror and Farmer* - Sat, Jan 19, 1867 pg. 2

### February 15th

**Boston Demo:** “An exhibition of the locomotive invented and patented by Sylvester Marsh of Chicago, for overcoming steep grades on railroads by means of an iron center cog-rail, was given, Friday (2/15), at Boston. The miniature model locomotive (See Vol. 4 Appendix - Model Behavior) propelled a small car, loaded heavily with iron, up a grade of upwards of 1790 feet to the mile, with great facility and steadiness. Many members of the Legislature were present.”

- *Springfield (MA) Republican* - Sat, Feb 16, 1867 pg. 8

### April 13th

**Swiss Interest:** “Hon. John Hitz, the Swiss Consul General at Washington, arrived in Concord, N.H., on Tuesday (4/9) evening on his way to Mount Washington, to examine the new steam railway commenced there last season. The deep snow, however, will probably prevent any exhibition of the railway at this season of the year, but Mr. Marsh, the inventor who is now at Littleton will show the Swiss official a fine working model of the enterprise. The home government of Switzerland have directed Mr. Hitz to get all possible information about the Mount Washington Railway, with a view of applying it to portions of the Alps. The Consul General will be the guest of ex-Senator Fogg during his stay in New Hampshire.”

- *Portsmouth (NH) Journal of Literature & Politics* - Sat, Apr 13, 1867 pg. 2

### April 20th

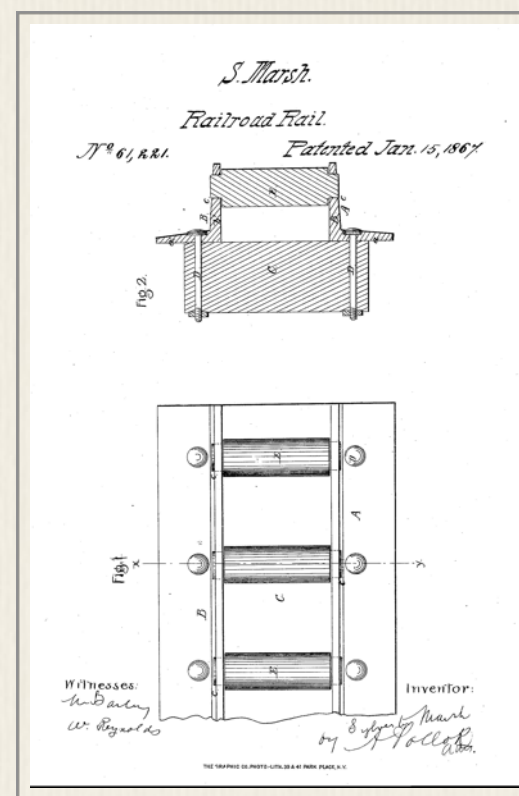
**Swiss Visit:** “It is complimentary to Yankee ingenuity that a commission has been sent from Switzerland to examine the railroad which enables us to make the ascent of Mount Washington, with a view of scaling the Alps on the same plan.”

- *Brandon (VT) Vermont Record* - Sat, Apr 20, 1867 pg. 2

### April 26th

**Construction Continues:** “The railway up Mount Washington is being constructed with great activity. The track iron is being transported to the base of the mountain, and teams and laborers are hard at work. A large and magnificent hotel will be built this summer, and will be ready for the travel of next year.”

- *St. Johnsbury Caledonian* - Fri, Apr 26, 1867 pg. 2 & *New Hampshire Statesman* - Fri, Apr 26, 1867 pg. 3



## May

*Work continues* on the track and improvements at the Base. The line was continued to about *1 mile up the mountain* to the location of the present Waumbek tank.

- <http://www.cog-railway.com/03timeline.htm>

Mount Washington *Turnpike Company chartered* and ran the route from the Fabyan House to the foot of the mountain to transport supplies for the new railroad - the first base road.

- *The Mount Washington Cog Railway: Climbing the White Mountains of N.H.*

## June 11th

*Mr. Bryan Visits the Base:* "I have done much at sight seeing to-day, and been well repaid for my tramp and toil. In company with Mr. Sylvester Marsh of Littleton, and Mr. W. B. Brinsmade of Springfield, (MA), I rode this morning on horseback, some six miles to the 'depot' as it is called here, which depot is in the heart of the wilderness at the foot of Mount Washington, and is the starting point for the mountain railway up the mountain, of which I wrote you a detailed description in August last. Mr. Marsh is the originator of this scheme for climbing the mountain by steam, and the builder of the railway thus far. Several railroad companies have invested in the enterprise, after seeing the practical success of the scheme, and other roads are ready to aid the enterprise; but the need of praise for this wonderful achievement is due to Mr. Marsh, for it is doubtless safe to say that not one of the many men and companies who now stand ready with substantial aid and comfort for the enterprise, would ever have invested a dollar in it if they had not first seen it in successful operation. So skeptical were railroad men, engineers, mechanics and the universal "everybody" in this important matter, when the subject was first introduced, that Mr. Marsh was deemed extremely visionary, and the manager of one prominent railroad, upon receiving a communication from him on the subject, supposed it was the writing of an insane man, and laid it aside in disgust. He has since, however, invested handsomely in the enterprise. And when Mr. Marsh, eight years ago, went before the New Hampshire Legislature, asking for a charter for a railroad up the side of Mount Washington, his petition was received, as the theater bills say, "with shouts of laughter." The wit of that session of the Legislature - for ever Legislature has its wit, you know - offered as an amendment, that the body grant a charter for a railroad to the moon. Mr. Marsh stood the laughs and jeers very philosophically then, and not it is his turn to laugh. His railway is in actual and successful operation, and he is pushing the whole three miles of mountain-side track on to completion as fast as possible; and he would be glad to find the projector of the railway to the moon, help him to obtain his charter, bid him God speed in the construction of his track, and make regular connections with him, very soon, at the Tip-top House on Mount Washington.

The railway proper has its starting point on trestle work, built up directly from the waters of the Ammonoosuc, and starts on a grade of seventeen hundred feet to the mile, being the average grade of the three mile track from this place to the summit, and it is confidently expected that one mile will be completed in about four weeks from this time, and the cars running to a point known as "Waumbek Junction," from which place it is only two miles of mountain pathway to the top; and another season will doubtless see the cars running the whole distance. The survey for the railway track is on or near the old Fabyan path most of the way, and the cars, when running, can be seen from all the region below, a large part of the way. This enterprise and achievement is really one of the greatest wonders of the time, and so well satisfied are all who have seen it in operation, whether railroad men or otherwise that it is not at all a visionary assertion to make, that, in five years, passengers will take the cars at New York, check their baggage to the Tip-Top House, and with only one change of cars see the sun rise in Gotham one day, and from the top of Mount Washington the next. From Mr. Marsh's railway "depot" we



*Advancing up Cold Spring to Waumbek (1867)*  
- Gift of Glen Kidder to Teague Family Collection



*Looking down Cold Spring Hill (pre-1871)  
- Conrad Ekstrom Collection*

through the woods to the White Mountain House, where a supper of brook trout awaited us, and we did full justice to the excellent cooking of mine host. - C. W. Bryan”

- *Springfield (MA) Republican - Sat, Jun 15, 1867 pg. 4 / reprinted Indianapolis Daily Journal - Mon, Jun 24, 1867 pg. 3 & St. Johnsbury Caledonian - Fri, Jun 28, 1867 pg. 1*

### June 22nd

**Mid-July to Waumbek:** “It is expected that one mile of the railroad up Mount Washington will be completed about the middle of July, and that cars will then run that distance to a place called “Waumbek Junction,” two miles from the top. The average grade of the road is thirteen hundred feet to the mile.”

- *Windsor Vermont Journal - Sat, Jun 22, 1867 pg. 1*

### August 9th

**Widow on the Mountain** - “Last Friday week ago Mrs. William H. Brown, a widow lady, of Fairfield, Connecticut, and sixty years of age, started from the White Mountain House in company with a female companion and a guide, to make the ascent of Mount Washington. They went a portion of the way by the new steam railway, and walked the remainder of the distance to the summit. Remaining there a few hours and taking dinner they started at three o’clock to go back. About an hour afterward it was suddenly discovered that Mrs. Brown was missing. A search in earnest for Mrs. Brown was then commenced. One hunting party went from the White Mountain House, and another was made up from the employees of the railway. The search was kept up all night, but without success. Next morning at about nine o’clock, to the great joy and surprise of all in the vicinity, Mrs. Brown made her appearance at the foot of the railway. She was hungry and exhausted, and her clothing was torn and damp. After taking some cordials

tramped up Mount Washington, Passing in on instance over a snow drift some two feet deep, and had one of the most delightful days ever known on the mountain, no winds, no clouds, the atmosphere tolerably clear, and the temperature mild in the extreme, no fire was thought of, no overcoats needed, and the thermometer, if one could have been had, must have gone far up in the fifties; but the Tip-Top House was nailed up closely, we were “out of humanity’s reach,” and thermometers were out of the question. The deathly stillness which reigned supreme was oppressive, and after gazing in silence and awe at the grandeur and magnificence before and around us, we started downwards.... When we reached the Mountain railway “depot,” on our return, the steam horse was ready for a start up the mountain and whinnied as a welcome neigh before we got in sight of him. He had twenty-five pounds of harness on, and with this he carried us up as far as the track is completed, and down, up and down, on the 1700-foot grade as easily and safely as one could ride “on a barn floor.” From there we galloped back



*Peppersass on Cold Spring with female passenger (~1867)  
- Conrad Ekstrom Jr. Collection*

and breakfast, she found herself very comfortable and felt no serious effects from passing a night in the mountains. Such an experience is one that a lady sixty years of age may well be proud of. The night was mild for summer climate at the White Mountains - a fact greatly in her favor. Of the heroine we will only further say, she is the widow of a late well-known shipbuilder of New York City, and that kindred and friends in various places will be glad to learn that she is apparently, none the worse for passing a night alone and unprotected among the mountains."

- *The Cincinnati (OH) Enquirer* - Mon, Aug 26, 1867 pg 3

### August 27th

**Fleeing Tourists:** "A tourist says to those who go up to Mount Washington that they get into pretty much such company as the man did in going up to Jericho; and that the landlords there ask how much money one has, where he comes from, give him a return ticket, and take all his cash. Everybody does not say so, however."

- *Vermont Watchman & State Journal* - Wed, Aug 28, 1867 pg 1

### September 5th

**Furious Snowstorm:** "There was a furious snow-storm on Mount Washington last Thursday (9/5). Parties ascending were driven back. The thermometer fell to below the freezing point, and Ice made on the telegraph poles several inches thick. - *Rutland (VT) Independent* - Sat, Sep 7, 1867 pg 2

### October 18th

**Slideboard Genesis:** "The workmen engaged in building the White Mountain Railway amuse themselves in rigging sleds with which they slide down on the greasy timbers which form the framework. Taking short trips at first, they have become more venturesome until the whole distance over which the road is built has been traversed in this novel manner. The distance from top to bottom - one mile - has been performed by one of their club sleds in a minute and a quarter. But the sport is attended with some danger, for one sled left the track, and the fall broke the leg of its occupant."

- (*Concord*) *New Hampshire Statesman* - Fri, Oct 18, 1867 pg 2 & *New England Farmer (Boston)* - Sat, Nov. 16, 1867 pg 3



To the Supreme Judicial Court, next to be holden at Lancaster, in and for the Southern Judicial District, in the County of Coos and State of New Hampshire, on the first Tuesday of November, A. D., 1867.

**R**ESPECTFULLY represents the Mount Washington Railway Company, that it is a corporation duly established by law in said State, with authority to locate and construct a railway from any point in the vicinity of Mount Washington, to the summit thereof, in said State. That said Corporation has located its said railway on and over the following route, to wit: beginning at a stake and stones eighty rods more or less, from the saw mill, recently erected by said Corporation, near the base of said Mount Washington, on the westerly side thereof, and extending thence easterly up the side of said mountain, to the Tip Top House, so called, on the summit thereof; all said route being over lands situate in said Southern Judicial District, in said County of Coos; and that said Corporation has been and still is unable to agree with the owners of the lands over which said route passes, as aforesaid, on the amount of damages to be paid them therefor, and said owners are unknown to it. Wherefore, said Corporation prays said Court to cause assessment to be made of said damages, and report thereof to said Court, and for judgment on said report as provided in the original act of incorporation of said Company.

Mount Washington Railway Company by  
SYLVESTER MARSH, President.

STATE OF NEW HAMPSHIRE - Coos ss. Supreme Judicial Court, Southern Judicial District, Clerks Office, September 16th, A. D., 1867.

The foregoing petition having been duly filed in the office of the Clerk of said Court, at Lancaster, in said County, on the said sixteenth day of September, A. D., 1867. It is ordered that the said Mount Washington Railway Company notify the owners of said lands, that a hearing will be had thereon, at the next trial term of said Court, to be holden at Lancaster, in and for said Southern Judicial District in said County, on the first Tuesday of November next, by causing an attested copy of said petition and of this order of notice thereon, to be published three weeks successively in the *Coos Republican*, printed at said Lancaster, the last publication whereof to be at least thirty days prior to said first Tuesday of November next; that they may appear, if they see cause, and be heard in the premises.

Attest, D. C. PINKHAM, Clerk.

The foregoing is a true copy of a petition filed as aforesaid, and of the order of notice thereon, by me examined.

15

Attest, D. C. PINKHAM, Clerk.

- *Lancaster (NH) Coos Republican* - Tue, Oct 1, 1867 pg 3



1868

**Locomotive #2** - is **built** with upright boiler by Walter Aiken. Glen Kidder writes, "The second locomotive, which apparently carried neither a name nor a number actually, was heavier than *Peppersass*, having large solid or disc wheels on both the front and rear axles (*left*). It also had larger cylinders which, by gearing, powered the rear axle rather than the front one." Four years later, Sylvester Marsh wrote about this development "We soon needed a second engine and Mr. Aiken contracted with the road for one. His agreement was as follows... to build an engine capable of carrying six tons freight or passengers up the mt grade at speed of 3 miles per hour. The engine never quite came up to the condition of the contract, but the Co. accepted and paid for it. He has since that time built 3 other engines at a much higher cost

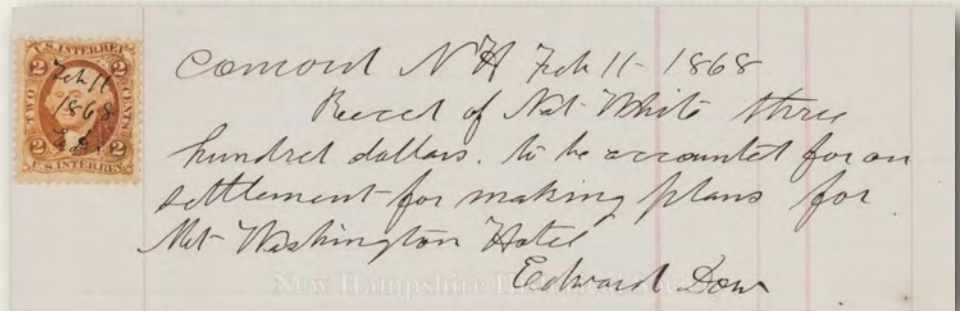
none of which were equal to my first one. I think he took stock for all his machines. He now holds 185 shares."

- *Railway to the Moon / Marsh papers, Dartmouth College MS 876412*

### February 11th

**Hotel Designer Compensated:** Edward Dow writes out a receipt in Concord, New Hampshire for \$300 (~\$5,767 today) he received from Nat White as "settlement for making plans for Mt. Washington Hotel." (Ed note: *Fabyan House or Marshfield House?*)

- *New Hampshire Historical Society Collection*



### April 30th

**Thirty-six Additional Employees Soon:** "The Mount Washington Railway was completed last Fall (1867) one mile and thirty rods of the three miles up the mountain; for the next mile the tracks are covered with snow two feet deep. The number of hands will be increased, in three weeks, from 14 to 50. The present estimate of cost is \$100,000, though the figures may add differently at the completion of the work on the 1st of September." - *Montpelier (VT) Argus & Patriot - Thu, Apr 30, 1868 pg 2 & Manchester (NH) Weekly Union - Tue, May 5, 1868 pg 3*

### May

**Track work resumes** in May (5/11) and continued until October when a fierce winter storm caused work to be stopped immediately about 500' from the summit. During this period the famous **Jacob's Ladder** trestle was **built**. The trestle is 300' long and it has a grade of 37.41%. A second locomotive is needed and Walter Aiken is contracted to build the *George Stephenson*, starting a life-long involvement for Aiken which would last until 1893

- <http://www.cog-railway.com/03timeline.htm>

### May 3rd

**Loco #2 nearly Complete:** "A locomotive engine, designed to run on the Mount Washington Railway, is nearly completed, at the machine shop of Walter Aiken, in Franklin, N.H. The boilers are upright, and contain three hundred and thirty tubes, with five hundred square feet of heating surface. The cylinders are ten inches in diameter, with sixteen inches stroke. This engine, in ascending the mountain, is coupled to the rear end of the train and pushes the cars up the declivity. The best materials have been used in its construction, and powerful brakes and other safeguards provided for protection against accidents. It has been four months building, and weighs about seven tons." - *Lancaster (NH) Coös Republican - Tue, May 5, 1868 pg 3 / White Mountain Republic (Littleton, NH) - Fri, May 8, 1868 / Brooklyn (NY) Daily Eagle - Sat, May 16, 1868 pg 4 / Burlington (VT) Weekly Sentinel - Fri, May 22, 1868 pg 3*

### May 8th

**Novel Idea - Practical Reality:** "The novel idea of building a railroad up Mount Washington, which was so much scoured at the time it was proposed, will this summer be a practical reality. One mile and thirty rods of

the three miles up the mountain were completed last fall; for the next mile the snow has disappeared so that work is to be commenced with increased activity immediately. The number of laborers will be increased from 40 to 50. The present estimate of cost is \$100,000 (*\$1.9-million today*), though the figures may add differently when the work is accomplished, which will doubtless be by the first of September. A very good stereoscopic view of the first few rods of the completed road, and also the locomotive now in use, which is very much like the one above described was taken last fall by the Kilburn Brothers.”

- *White Mountain Republic (Littleton, NH) - Fri, May 8, 1868*

### June 13th

**Loco #2 Ready for Service:** “A locomotive designed for the use of the Mount Washington railway, which has been building for four months past, at Franklin, N.H., is now ready for service.”

- *Scientific American - June 13, 1868*

### August 3rd

**First (48) Passenger Car:** “The car (*right*) designed for use on the Mt. Washington Railroad, was taken up over the Montreal Railroad on Monday (8/3) afternoon of last week.

- *White Mountain Republic (Littleton, NH) - Fri, Aug 21, 1868*



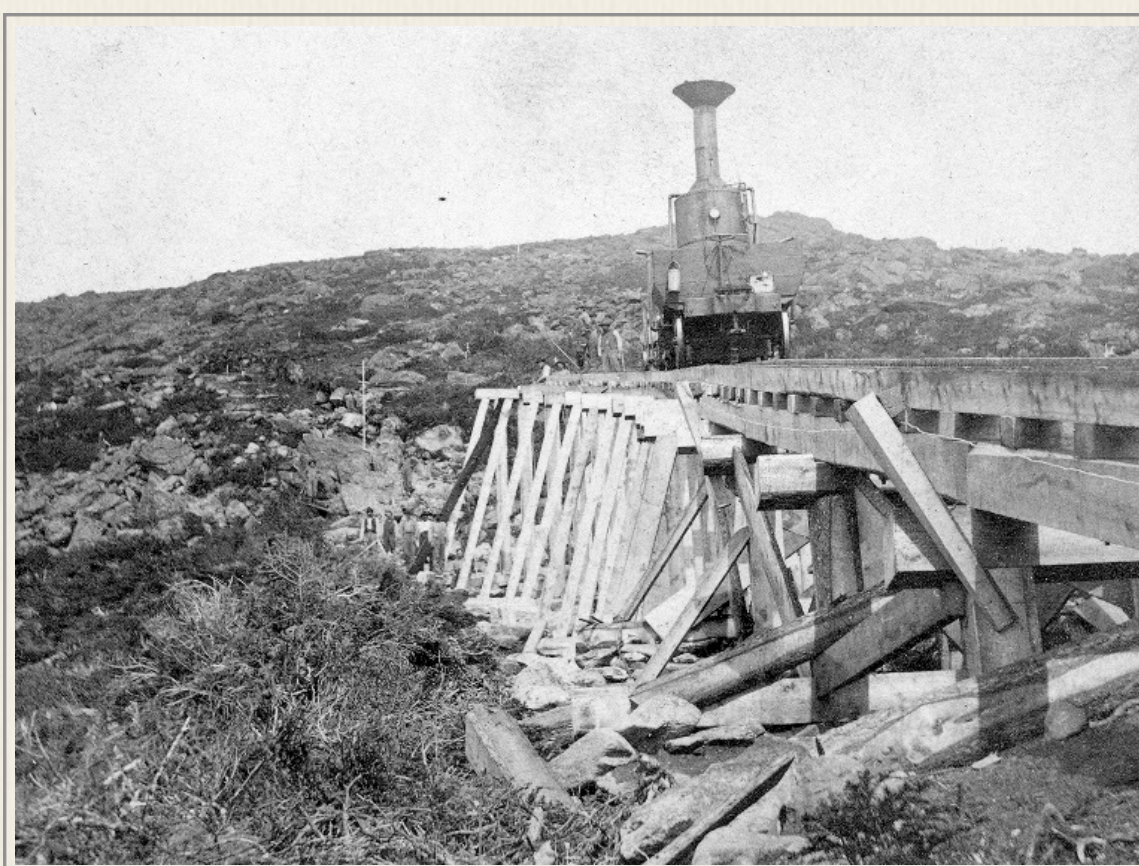
### August 5th

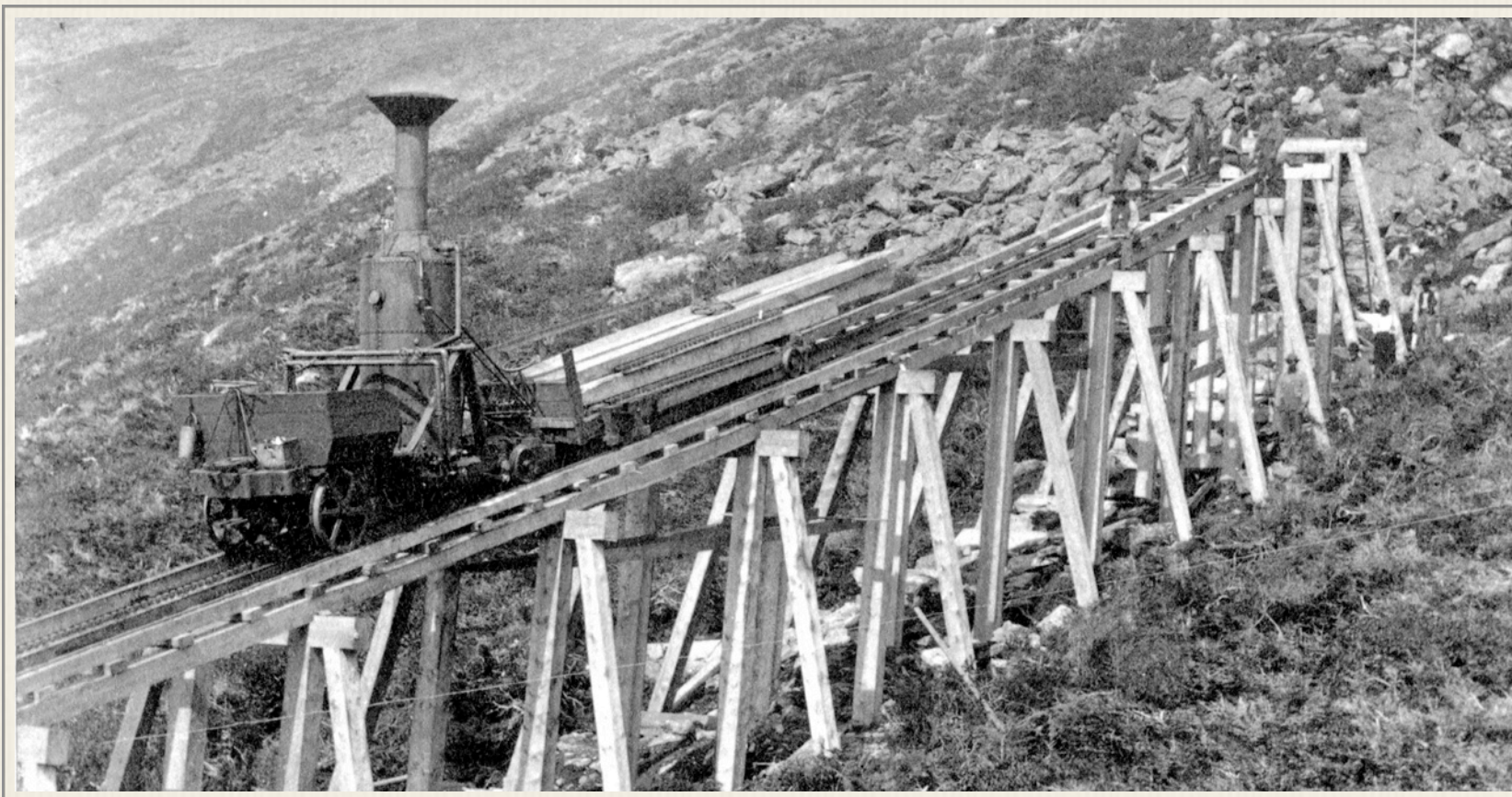
**Two Miles Complete:** “The Mount Washington Railroad is now completed to the top of “Jacob’s Ladder,” within three-fourths of a mile of the summit. Length of road now completed, two miles.”

- *New Hampshire Patriot & State Gazette - Wed, Aug 5, 1868 pg. 2*

### First Week of August

**Laying Rail:** A correspondent of the *Boston Transcript*, writing from the White Mountains, describes a trip over the Mount Washington Railway: (*excerpts of article*) “The average grade of the track is 1300 feet to the mile, but in places this grade is increased to 1700 feet, or one foot in three. Now place your railway, or imagine it placed, upon a trestle-work thirty feet high, as at Jacob’s Ladder (*below*), and expect men to work about upon it, hitting heavy rails and timber, etc., and you can see that the progress made must be in such parts very slow – and so indeed it was; the men, fearful of sliding back in spite of sharp spikes in their shoes, and obliged to move about with extreme caution lest they be dashed on the rocks below, were only able to build twenty-five feet a day, whereas they are now easily laying seventy-five feet a day. The rails are three in number – the two outer ones being mere flat strips laid upon longitudinal sills, which rest upon cross-ties – the central and important one being a cog-rail or ratchet, made of wrought iron, with very strong cogs or pins, against which the teeth of the driving wheel of the engine work in ascending and descending the road. These rails cost the company three dollars per foot in Boston, and four dollars delivered at the depot at the base of the mountain. After examining the track and train to my satisfaction, I mounted upon the (work) car; the steam was turned





on, and the engine started, pushing before it the car with its load. The position of the car above the engine is necessary, in order that the train may always be under the control of her powerful brakes, and that the car may not be left behind through the breaking of a coupling or other accident. With a steady motion – no jarring or rocking, but merely a slight trembling like that of a steamer under the stroke of its engines – step by step, one ‘peg’ at a time we moved up the mountain, at the rate of about two miles an hour, straight towards the Tip-Top House. Our first stop was made at the height of two thousand feet, at a house occupied by the workmen on the road, and called the ‘Waumbek Junction,’ this being the point where the bridle-path from Stilling’s, on the road from Gorham to Jefferson, comes out on the railroad. Here we took in water at the well-known ‘Cold Spring’ and then went on to the second ‘station,’ at the foot of ‘Jacob’s Ladder,’ and two thousand six hundred feet above the depot. At this point the road, for the first time, diverges considerably from its direct course, making a turn to the left to avoid the steepest part of the ‘the Ladder,’ and yet having to overcome the sharp grade of one in three already mentioned. The ascent from the depot to the second station, including two stoppages for water, occupied one hour and twenty minutes; the descent, upon the following day, only thirty-eight minutes. Thus steadily and surely, in the face of croakings and prophesies of those hostile to the undertaking that its completion would require two or three years more; with a perseverance and energy worth of all praise; promising little, but in reply to interrogations quietly saying that he hoped at such a time to reach a certain point, and always doing it, Mr. Sanborn, with his corps of thirty-five to forty men, has pushed on the work until now he is able to say to us that in another week he will have reached a point whence the Tip-Top House can be seen, and whence it is an easy walk of half a mile to the summit – that then he will be past all the steep grades, will have no more trestle-work to build, but can go on laying his track upon the solid foundation of the mountain itself at the rate of one hundred and twenty-five feet a day, and that in fifty days, if the weather is good, will complete the road, and trains will run from the depot to the front door of the hotel. ‘Then,’ said he to me triumphantly, ‘the day will soon come when a man can breakfast in Boston, dine at Plymouth, and take tea on top of Mountain Washington!’ In a day or two the company will have upon the track a passenger car capable of seating fifty passengers, and next week it is expected that a regular train will commence running once a day from the depot to the end of the road, notice of which will be given to the public through the papers, together with the particulars as to fares, etc., not yet known. It may be that the running of trains will be inaugurated by a little ‘celebration.’”

*-The Evening Telegraph (Philadelphia, PA) – Fri, Aug 14, 1868 – pg 6*

### August 12th

**The Concord Correspondent:** “The following are some extracts from the pocket-memoranda of a newspaper ‘Bohemian,’ cormorant in this city (*of Concord, NH*), who has been following in the popular current, mountain-ward, since dog-days set in, which he allows us to copy for *Herald*: “Aug. 8 – Saturday. The Doctor advised us to start again for the mountains, and take with us a young miss of 14, similarly afflicted (*with asthma*,



hay fever and rose-colds). Six hours found us in Littleton... Aug. 9 – Sunday. Walked over to Bethlehem, 5 miles, in 1.30, mercury about 86 deg. Stopped five minutes and bathed our head in a watering trough. Aug. 10 – After dinner, we took a back seat in Richardson’s new Lancaster mountain wagon, for the White Mountains House, with four young, well matched and spirited light bays, “bound to go.” We spent a couple of hours at the White Mountains House. Sylvester Marsh, Esq., who originally planned the Mount Washington Railway, ten years ago, took us in his buck-board wagon, showed us his farm and the preparations for building a large hotel on the site of the Giant’s Grave, near the old Fabyan place. It commands a superb view of Mount Washington, six miles east, with the whole neighboring range from the Notch to Randolph Hill. Mr. Marsh has already expended some \$8000 (~\$154,000 today) in grading this site. Returning to Concord on Thursday, August 20th, while at the depot, next morning (8/12), we were pressed to join the excursion of railroad express and telegraph officers, to make an experimental trip up the Mount Washington Railway. Our limits will not now permit giving full details. Two car loads with two engines made the ascent of two miles in a little over three hours, coming down in half that time. Three-fourths of a mile of the railway remains to be finished, which will be done this fall if the weather permits before winter storms set in. The car is similar to a horse car, covered, but it shuts out the ground view as you rise 2600 feet above the railroad depot. The railway is nearly a straight line, curving a little after passing ‘Jacob’s Ladder,’ where it is supported by trestle-work, in some places thirty feet high, down which you can look into a gulf at least two thousand. The new car carried up nearly 60 passengers, seating 48. (The latter was enough for the engine.) The engine was built last winter, at Franklin, N.H., by Walter Aiken, who rode up on, and will doubtless see chances for improving it. The car weighs three tons, and with the passengers we estimate the whole weight to be about eight tons. Riding on both cars we found the rear platform car, with the old engine (*Peppersass*), built by Campbell, Whittier & Co., of Roxbury, the best for viewing the grand scenery. It was packed with some 40 passengers. The trains made two or three stops for water and wood – green pine slabs were used, injudiciously for speed, we thought – especially after hearing Plaisted, of the Waumbek, say that it takes “twice as long to boil an egg hard on the summit of Mount Washington as at his house.” On the summit a couple of hours were spent. At least 200 crowded the Tip Top and Summit Houses, where J. R. Hitchcock, Esq., landlord of these and the Alpine House, at Gorham, furnished a substantial dinner to the hungry crowd, whose appetites had been whetted by climbing a mile or more over the old Fabyan horse path, with its sharp stones and jagged rocks, above the railway terminus. - ‘Keesauke.’

- *Boston Herald* – Wed, Aug 19, 1868 pg. 2

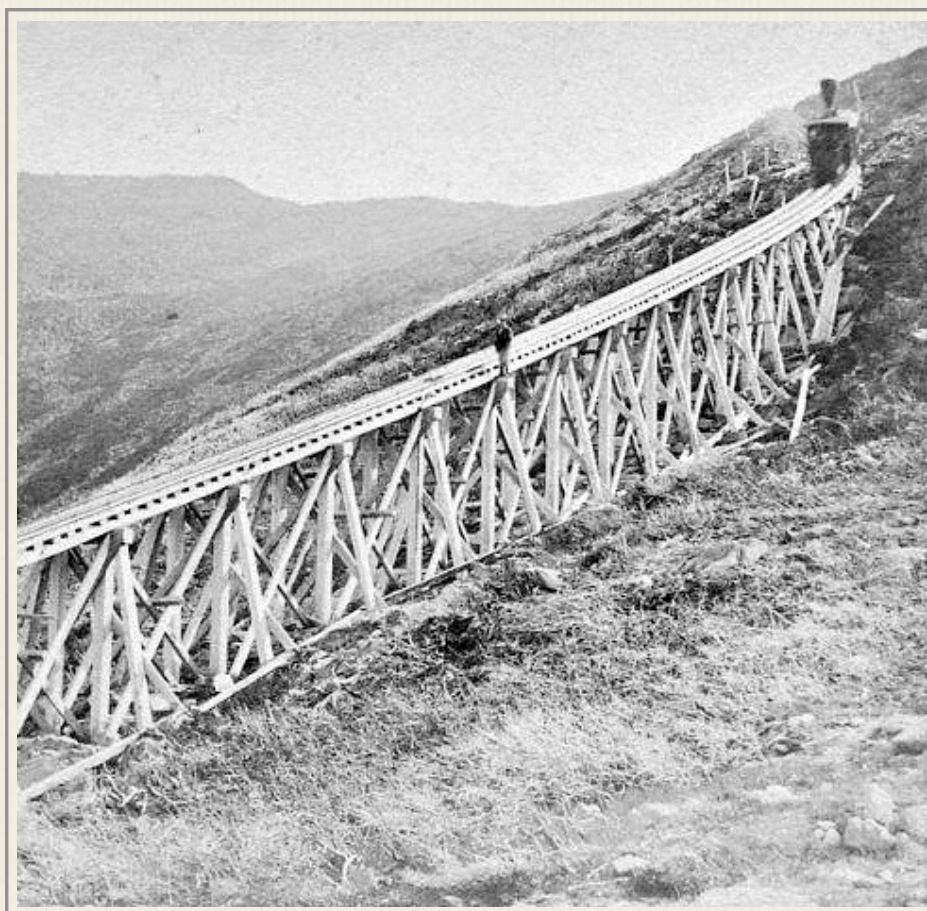
### August 13th

**Tip Top Within Sight Soon:** “The Mount Washington railroad will reach a point, next week, from which the Tiptop House can be seen, and within half a mile of the summit.”

- *Montpelier (VT) Argus & Patriot* - Thu, Aug 13, 1868 pg. 2

### August 14th

The **first paying customers ride** from the Base **to just above Jacob’s Ladder** on August 14, 1868. “The day for the ascent was clear and cold, the thermometer standing at 38-degrees Fahrenheit in the morning. At eight o’clock they (the passengers) started for the Depot (from the White Mountain House). The two engines (*Peppersass* & *Engine #2*) were used, and both trains started at twenty-two minutes past ten. The newer and more stylish turnout took the lead and transported the majority of the party, amounting to fifty or sixty. The other train carried about forty persons. For some reason the progress was slow, rather more than three hour’s time having been consumed on the way to Jacob’s Ladder. The party went on foot the rest of the way to the summit. At the Tip-Top House, a bountiful dinner was provided. The stay at the



## 1868

summit was brief, and after embarkation on the trains good speed was made, the downward journey being accomplished in an hour and a half.” - *Cog Railway: Climbing the White Mountains of New Hampshire by Bruce D. Heald / also Mount Washington in Winter 1871*

**Inauguration of the New Railroad on Mount Washington, N.H.** “A delegation of railroad men, members of the Press and telegraph men are at the summit of Mount Washington to-day upon the invitation of the proprietors of the Mount Washington Railroad Company, to inaugurate the new railroad, which is completed to within a short distance of the summit. The road is a success and the occasion was made a pleasant one to all concerned.” - *New York Times - Aug 15, 1868 pg. 5 / Story of Mt Washington*

**Boston Journal Dispatch:** “Yesterday witnessed the formal opening of the road to a point three quarters of a mile from the summit of the mountain, or for something over two-thirds of its entire length. Two years ago a small section of the road was opened, and a public trial resulted in entire success. Last year a similar trial over an extension of the railway gave equally gratifying results. The road was completed last year to a point known as Waumbek Junction, one mile and eight rods from the starting point. Waumbek Junction is so called from the fact that the Fabyan bridle path was here joined by the path which led from the Waumbek House, or Jefferson. Work was begun again on the railroad this season May 7th, and in the eighty-four working days ensuing, up to yesterday (8/14), it had advanced a further distance of a trifle over a mile... The present terminus is at the top of Jacob’s Ladder (*previous page*), as something like a mile of the old bridle path was aptly called on account of its zigzag course. There are two locomotives and two cars upon the road. The new car is similar in appearance to a horse-car, though a trifle longer, with a roof, windows upon the sides and doors at the ends. An aisle runs through the center and there are seats for forty-eight persons. The seats are swung so as to secure a horizontal position upon all grades, and the passengers are pretty sure to retain their places, either in their seats or braced against the ends of the car, upon the platform, during the journey, since a walk through the aisle is attended with about as much difficulty as it would be up or down the roof of a building. Over six thousand feet of sawed lumber have been used in the construction of the road, up to the present time, and much other lumber in addition. A saw mill, worked by steam, is situated at the depot, and the surrounding forests furnish abundant material for the woodwork. A telegraph line runs up the side of the railroad, and an operating office is located in a log house at the foot of the mountain, connecting with the summit, the mountain houses and all other points.”

- *Printed in The New Orleans Crescent - Sep 6, 1868 pg. 3*

**White Mountain Republic:** “Mt. Washington R. R. - This enterprise was publicly inaugurated on Friday (8/14), in the presence of many prominent railroad and stage men, all of whom went up on the new car. The rate of speed is about three miles an hour, the passage is regarded as entirely safe, and the road was voted a success by all present. It is now opened to a point quite near the summit, and the managers think they can complete it the present season. One hundred and twelve feet of track is being laid every fair day.

- *White Mountain Republic (Littleton, NH) - Fri, Aug 21, 1868*

### Week of August 22nd

**Cold Ladder:** “We are informed that ice formed upon water to the depth of a quarter of an inch, at the shanty near Jacob’s Ladder, Mount Washington, one night last week (*of Aug 22*).”

- *Laconia (NH) Lake Village Times - Sat, Aug 29, 1868 pg. 2*

### August 29th

**Appreciate the Ride:** “The thanks of the excursion party at the opening (8/14) of the Mount Washington Railway are particularly due to John E. Lyon, Esq., the courteous President of the Montreal Road. The trip was principally over his line and its connections, and the arrangements he made for expeditious traveling and general comfort, could not have been better. Whenever the pleasures of the trip are recalled, his name will be remembered as their chief promoter.”

- *Laconia (NH) Lake Village Times - Sat, Aug 29, 1868 pg. 2*

### October 7th

**Heavy Snow:** “There was a violent snow storm last week on the White Mountains in New Hampshire. On Wednesday (10/7) snow had fallen to the depth of a foot and a half near the head of the new Mount Washington railway.”

- *McArthur (OH) Enquirer - Thu, Oct 8, 1868 pg. 2*

**November 6th**

**Frostbitten:** “Eighteen inches of snow now covers the summit of Mount Washington. While the workmen near the railroad terminus were engaged in removing some tools recently, a number had their ears frostbitten.”

- *White Mountain Republic (Littleton, NH)* - Fri, Nov 6, 1868

**November 27th**

**Wing Road Begins:** “The Montreal railroad is to be extended to Whitefield, J. J. Sanborn, the efficient superintendent of the great railroad up the steep of Mt. Washington, is assigned to the duty of the construction of the road from the Wing Road in Bethlehem, towards Whitefield. The work will be pressed immediately.”

- *White Mountain Republic (Littleton, NH)* - Fri, Nov 27, 1868

**1869****January 16th**

**New Engine & Car Under Construction:** “Six miles of the new railroad from Littleton, are partly graded and will be opened as far as Whitefield, the coming season (1869). A new carriage road from the Waumbek to Fabyan’s and a bridge at the Ammonoosuc Falls, to connect the Crawford, with the Marsh station at the foot of Mount Washington, are among the new enterprises soon to be entered upon. The steam car track was laid last autumn to within a stone’s cast of the door of the Tip Top House. Another steam engine is building and new style of car for passengers will be introduced, combining new conveniencies[sp] and every precaution against danger. John Lindsey, has bought the Fabyan estate of Sylvester Marsh.”

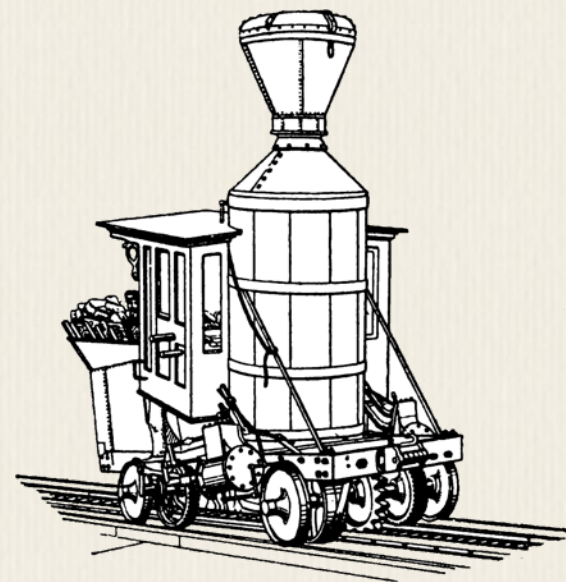
- *Vermont Journal* - Sat, Jan 16, 1869 pg. 5

**April 18th (estimated)**

**Sanborn Base Visit:** “John J. Sanborn, of Laconia, master builder of the Mount Washington Railway, visited the lower depot of the road, at the foot of the mountain three miles below the summit, a few days ago. The intervening seven miles of new turnpike between the White Mountain House and the lower depot, has not been kept open the past winter, as it was during the previous one, when lumber teams were employed there and the depth of snow was much less. Mr. Sanborn says that, driving up the Ammonoosuc valley in a sleigh, from Littleton through Bethlehem and Carroll, he managed to pass the extensive saw-mills, in the easterly part of the latter town, where the road had been broken out for lumbering, to a point within half a mile of the White Mountain House. Here he had to leave his sleigh. Reaching the hotel he found the snow three and a half feet deep. The man in charge had not taken his horses out of the stable for the previous fortnight on account of the snow blockade, carrying them their water. A new mountain locomotive (*Geo Stephenson*) is being built, and that put on the railway last summer (#2) reconstructed. New cars will also be put on, covered only with an awning, the long, horse-car shaped vehicle, used last summer, being deemed a poor arrangement, as the covering obstructed all the best views. Besides, it is not considered entirely safe in case of the heavy gales of wind so frequent on Mount Washington. The writer was one the summit once, in 1838, with a hurricane mixed with terrific thunder, lightning and hail, rushing up the valleys and gorges below and howling like then thousand demons. Letting his horse go loose, he laid himself prostrate, face down, until the storm had passed - a situation far preferable to a seat inside that car, when passing over some of the twelve to twenty and more feet of trestle-work around and above Jacob’s Ladder, with at least 3000 feet deep yawning beneath, and nothing to prevent the car from going to the bottom if blown off! Mr. Sanborn says the snow around the Ladder lies, as near as he could see, nearly even with the top of the trestle-work, say from ten to twelve feet deep. No one has been to the summit house this past winter.”

- *White Mountain Republic (Littleton, NH)* - Fri, Apr 23, 1869

**Locomotive #2a - George Stephenson** is built with upright boiler and cab. Walter Aiken’s first engine (#2) did not perform well the prior summer, and was replaced in 1869 by his second effort named the *George Stephenson*. Diagram (right) from letter to Mr. N. Riggerbach from Otto Gruninger in anticipation of construction of a railroad up the Rigi from Vitznau in Switzerland.



## 1869

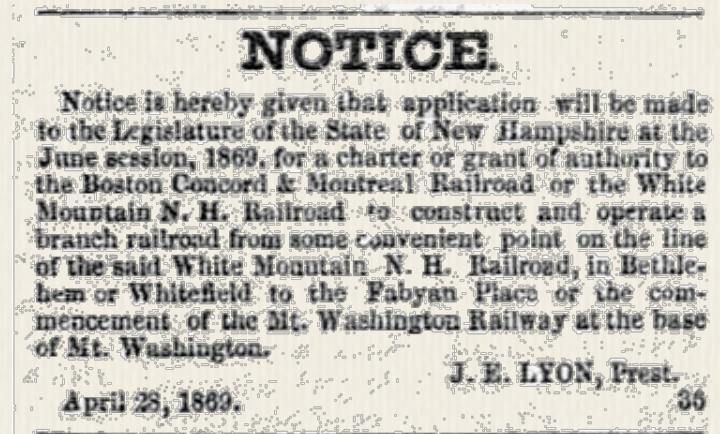
### April 22nd

**Marshfield House:** “The new hotel at the lower depot of the Mount Washington railway, N.H., to be built this summer, will be 80 feet long, two stories high. The new cars will be covered only with an awning (*next page*), the old long and closed cars heretofore used not only obscuring views, but being unsafe in the heavy gales so common there. In passing over trestle work near Jacob’s Ladder, a good broadside breeze might send the cars into the gulf 3000 feet below.” - *Burlington (VT) Free Press - Thu, Apr 22, 1869 pg. 2*

### April 29th

**Wing Road Legal Notice:** “Notice is hereby given that application will be made to the Legislature of the State of New Hampshire at the June session, 1869, for a charter or grant of authority to the Boston Concord & Montreal railroad or the White Mountain N.H. Railroad to construct and operate a branch railroad from some convenient point on the line of the said White Mountain N.H. Railroad, in Bethlehem or Whitefield to the Fabyan Place or the commencement of the Mt. Washington Railway at the base of Mt. Washington. - J. E. Lyon, Pres.”

- *New Hampshire Patriot & State Gazette - Wed, May 19, 1869 pg. 1*



### May 3rd

**Depot Construction Begins:** “Work will begin on the hotel and depot of the Mt. Washington Railway by Monday (5/3). Work on the railroad will not be begun until the middle of June. Only five hundred feet of the railway remain to be finished, and by July visitors will be able to take passage at the foot of the mountain and ride in a nice, covered car to the very summit. The hotel and depot accommodations will also be ready at the same time.” - *White Mountain Republic (Littleton, NH) - Fri, Apr 30, 1869 / NH Patriot & State Gazette - Wed, Apr 28, 1869 pg. 2*

### June 12th

**New Car Order:** “Messrs. B. J. Cole & Co., of (*Lake Village*) have received orders for a new car for the Mount Washington Railway. The car is to be 28 feet long by 7 wide and will contain 8 seats capable of accommodating 5 persons each (*40 total*). These seats are the whole width of the car, and a narrow platform extends entirely around it. The framework of the top is to be made of gas pipe, and the covering to be of duck cloth, which can be rolled up to the centre of the top or brought immediately back to its proper position on approach of a storm, by means of elastic straps. This portion is the design of Mr. Thomas Ham, of (*Lake Village*). Two atmospheric brakes are to be attached to the car. It is to be made of the best materials, very substantial and very light, and is to be completed by the fourth of July, in seasons for Summer travel.”

- *Laconia (NH) Lake Village Times - Sat, Jun 12, 1869 pg. 2*



*Geo Stephenson & new car at Jacobs (1869)*  
- *New Hampshire Then & Now Collection*

### June

**New Hampshire Railroad Commissioners Report:** “Last August (1868), we made an excursion up the Mount Washington railway, by invitation of its directors. At that time it was about two-thirds finished; at present it is completed nearly to the summit, and, we understand, will be in good running order for this season’s travel. This road is not strictly within our province, yet it is a great curiosity, and speaks well for the enterprising energy of its projectors, and no doubt will inaugurate a new era in the mountain travel.” On page 34, they note “The Boston, Concord and Montreal Railroad, or the White Mountains N. H. Railroad, will apply to the Legislature for leave to

build a road to the Fabyan Place and foot of Mt. Washington, to connect with the railway to the top of the mountain.”

### June 18th

**Construction Extension Requested:** “The original charter of the corporation for building a steam railway up Mount Washington, having nearly expired, and the road not being completed, the incorporators have petitioned the Legislature for an extension of time and continuance of the charter. The matter being under advisement in the Railroad Committee, Mr. John Bellows, whose suits to establish his claim to the summit of Mount Washington, are well known to the taxpayers of Coös, proposed an amendment, to the effect that said railway company should be forever prohibited from offering any refreshments to travelers, thus giving Mr. Bellows, in the establishment of his claims, the exclusive monopoly of business on the mountains. This amendment was voted down in the committee by a vote of nine to one – and the bill was reported to the House, without amendment. We give an abstract of the debate and action which followed, taken from the Concord Monitor” (*Fitney Jr also blended debate material from the Manchester NH Mirror & Farmer coverage into the following abstract*):

### Tracking Construction Extension Progress New Hampshire Legislature

**Mr. Daniel of Manchester**, from Committee on Railroads, reported the bill extending the time of the building of Mount Washington Railway without amendment.

**Mr. Folsom of Exeter**, moved to amend section 3 by adding - “Nothing in the act contained shall authorize said corporation to maintain any hotel, eating house or place of public entertainment within the lines of the road as located under the provisions of this act.” This proposed amendment gave rise to conservable debate.

**Mr. Ramsdell of Nashua**, the Chairman of the (Railroad) Committee, stated that the same proposition was made to the committee, but after hearing the evidence, and taking into consideration all the facts bearing on the case, they were of the opinion that the law of the State was not broad enough to authorize a railroad corporation to keep a hotel, and they had therefore decided not to embody the amendment in the bill. They believed the rights of the owners of the mountains, whoever they might be, to be sufficiently protected by the General Statutes and the common laws and they were unwilling to annex to the charter a provision that would prevent any party, other than the owner of the contiguous land, from furnishing any refreshments, in however small quantities, to persons passing over the road.

**Mr. Ray of Lancaster**, spoke in support of the amendment saying that the title to the top of the Mountains, lay between the Jackson Iron Co., Henry B Wells, and John Bellows. – There was a strip near the summit of about 140 rods, which was in controversy between these gentlemen. He gave a history of the litigation which had grown out of the rival claimants to ownership of the mountain. Mr. Ray said this property was worth now, with the large tide of summer visitors to the top of the mountain, at least one hundred thousand dollars, and as high as twenty thousand had actually been offered for one man’s interest. The railway company’s charter allowed them to take six rods in width. The most magnificent house in the State was the Pemigewasset, at Plymouth, owned by the B. C. & M Road. Mr. Ray contended that those who have bought and paid for land, should not be virtually legislated out of their property by granting the railroad company a monopoly in the hotel business. If they want to (operate a hotel), let them buy and pay for the land. Mr. Ray said if the bill was passed without the amendment, it would be grossly unjust to the owner of the land, and ruin the value of the property, which was chiefly in the profit derived from the hotel on the summit of Mt. Washington. He claimed that inasmuch as the Railroad Commissioners had no authority to appraise property for any other purpose than for railroad uses, and as both the parties claiming title to the land had granted the right of way to the railroad without compensation, the result would be that they would lose their property.... If there was no purpose to go into the hotel business on the part of the railroad corporation, then they ought not to object to the amendment. There was no limit prescribed by the law to the width of the road; the Railroad Commissioners might lay out a strip more than six rods wide, and the railroad corporation, under the cover of a station house, might put up the most magnificent eating saloon in all New England. There would be no justice in it.

**Mr. Ramsdell** of the Railroad Committee was opposed to the amendment. He said that Mr. Ray was counsel for those who were claiming this property, and desired to know if the thousands of people who go up Mount Washington, must go there without a chance to get anything to eat, until this interminable law is settled.

*Mr. Kent of Lancaster*, opposed the amendment. He took the ground that it was neither becoming, just, nor proper to depart from the usual course of legislation and attach an amendment to this bill, which was unnecessary, and which would operate in the interest of one individual merely. The great value of the summit of Mt. Washington had been created by the exertions of those who had constructed the buildings, made improvements and built the carriage and steam roads, and every producer in Coös County was benefitted by the travel to the mountains, which travel should be encouraged by the State, and he did not believe that the Legislature would say that all the money and labor that had been expended to attract people to this renowned resort should accrue to the benefit of one individual, Mr. John Bellows of Exeter, or corporation, who had obtained his title at a price ridiculously small in comparison with the lowest valued that could be set upon the summit of Mt. Washington. He did not understand that the railroad corporation had a right to open and manage a hotel on the summit or at the base of Mt. Washington, but he claimed that the corporation should not be prohibited from furnishing the proper and necessary refreshment for travelers who visited that place. (Kent) asked if the Legislature should not encourage every enterprise tending to draw pleasure travelers to the Mountains. If this amendment was adopted, it would be impossible for them to furnish anything for the comfort and convenience of travelers, and it would diminish their profits, by keeping people back from visiting the mountains. No other railroad charter in the State had any such provision attached to it, and he thought the House would not consent to put it into the charter of a road which had struggled under such difficulties and obstacles as the Mount Washington Railroad had, when it was just approaching the completion of its work. This steam railway has done a great work for the whole State and should not be hampered or embarrassed. He would not have the railroad taken any man's property without giving him ample remuneration, and if the corporation took any man's land, they would have to pay whatever that land was worth.

*Mr. Ray of Lancaster*, again spoke in support of the amendment. (Ray) said that Messrs. Bellows & Wells had held their title ever since 1828, by a charter granted by the Legislature that year. They held 25,000 acres. He, (Mr. Ray,) was just as much counsel for the Jackson Iron Co., and Sylvester Marsh, as for the others. The Montreal Railroad Co. bought their property at Plymouth of the old Pemigewasset House landlord, Hon. D. R. Burnham. This (summit) property should be bought and paid for in the same way. This whole matter looked as if the Mount Washington Railway want to open a hotel on the summit. They should not be allowed to take property there without making ample compensation to the owners. The Spalding's, Rosebrook's and others, who have opened hotels there, have been cheated out of their property. The highest price charged on the summit never exceeded six dollars per day, and he contended it was as reasonable, where provisions and fuel had to be carried up, as the prices charges at hotels in this city (Concord), New York and elsewhere.

*Mr. Hackett of Portsmouth*, opposed the amendment. He said whoever might own the White Mountains, the State had a deep interest in the way in which everything connected with them was managed. In the judgment of the Legislature, an exigency existed, which required that a railroad should be chartered to the summit of Mt. Washington, and a charter was granted. The proposition before the House was substantially to take away from these grantees, when they had nearly completed the enterprise upon which they entered, a portion of their privileges granted them. Was there any reason, why this Railroad corporation should be singled out and treated any differently from any other Railroad company in the State? He thought the House would deliberate some time before they took any steps calculated to deter people from coming to the White Mountains. The true policy of the age was to grant all possible facilities to the people, to allow them to go where they chose, and the more accommodations they had, in every respect, the better. He saw no necessity for altering the charter.

*Mr. Page of Warren*, took the same view as the preceding speaker. It was simply a question, he said, whether public policy or private right required them to deprive the corporation of a part of the franchises heretofore granted. The charter granted to this road was substantially like all other railroad charters, and he could see no reason why it should be made exceptional at this time. He did not believe the representatives of New Hampshire were ready to vote that any individual should have the control of any particular branch of business, in any place, whatsoever, at the expense of the public. There is no monopoly today at the summit... When this amendment was grafted into the bill, if he visited Mount Washington, he would be prohibited from purchasing a cup of coffee unless he bought it of Mr. Bellows or his grantees. Mr. Bellows did not require any particular protection; he had shown himself eminently capable of taking care of himself and his counsel and keeping them busy. He had proved himself a man of good, strong, muscular, litigious characteristics, and he tough,

from the experience the courts had with him, they would be ready to pit against any corporation that ever appeared before them. He wondered the friends of this amendment did not go further and propose that no little boy should be allowed to peddle cold water and peanuts in the cars, because the corporation had only the right of way, and no right to furnish refreshments.

**Mr. Mason of Moultonborough**, said he should vote for the amendment, because he believed a man had a right to monopolize his own property. If a man owned a hotel site upon Mt. Washington, he was entitled to all the advantages that could be derived from that ownership.

**Mr. Kent of Lancaster**, replied that he did not object to a man's having a monopoly, of his own property, but if he owned the summit of Mt. Washington, and the State granted a charter for a railroad to carry people there, he did not believe the man should have exclusive right of furnishing refreshments to those people when they got there. He had no doubt that the Railroad Commissioners would make ample compensation for property taken. The question was then put, and the amendment lost, 20 (or 29) to 162.

**Mr. Ray of Lancaster**, then offered the following amendment to section 2: "Provided that in case said corporation erects or keeps any hotel or eating house upon the side of the mountain, within the limits of their route, then land owners whenever the same may be thus erected or kept, may apply to the Railroad Commissioners and have any additional damages thereby assessed, and may have the question of said damages tried by a jury, the same as in other cases of land taken by railroad corporations, for the construction of railroads."

**Mr. Page of Warren**, said this amendment covered substantially the same ground as the other, and he hoped it would be rejected. The question was put, and the amendment lost, 50 to 189 (or 60 to 149). The bill was then ordered to a third reading, and on motion of Mr. Page of Warren, the rules suspended, and the bill passed." - *Lancaster (NH) Coös Republican* - Tue, Jun 22, 1869 pg. 2 & *Manchester (NH) Mirror & Farmer* - Sat, Jun 26, 1869 pg. 6

### June 29th

**A Football Field to Go:** "Just 300 feet of the Mount Washington Railway remains to be completed."

- *Lancaster (NH) Coös Republican* - Tue, Jun 29, 1869 pg. 2

### July 3rd

Work resumes in June and the **Cog Railway is completed** to the summit of Mount Washington on July 3rd. Total cost of enterprise: \$139,500.

- <http://www.cog-railway.com/03timeline.htm> / *The Mount Washington Cog Railway: Climbing the White Mountains of NH*

**First Passenger Train:** "First ascent by passenger train on the railway, in the spring of 1869. The engineer was Josiah Folsom, now engaged in farming near Lakeport; among the passengers were Walter Aiken, manager of the Mount Washington railway; Jarvis Sanborn, contractor; John E. Lyon, President, and Joseph A. Dodge, Superintendent of the old Boston, Concord & Montreal railroad; and Joseph Pitman of Laconia."

- *Among the Clouds* - Fri, Sep 1, 1899



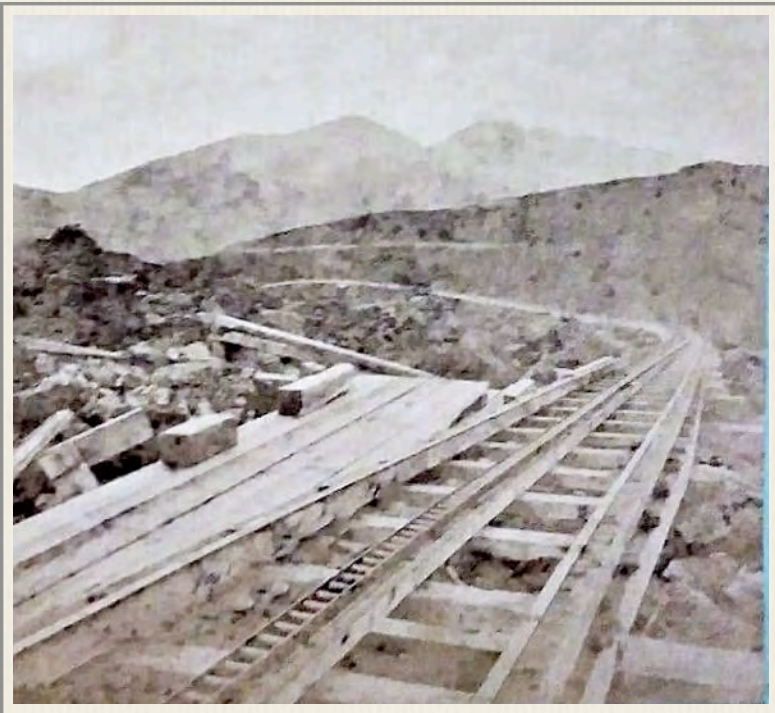
*News of Summit arrival is tapped out from a temporary telegraphy shack (1869)*  
- Conrad Ekstrom Collection

**Completed:** "The Mount Washington Railroad was completed on the 3rd (of July) at 4 o'clock P. M., and the cars now run to the top of the Mountain."

- *NH Patriot & State Gazette* - Wed, Jul 7, 1869 pg. 2 & *White Mountain Republic (Littleton, NH)* - Fri, Jul 16, 1869

### July 7th

**Construction Extension Granted:** The New Hampshire General Court adjusts the Mount Washington Railway Company's charter such that the five year time limit "relative to the construction of a railway to the summit of Mount Washington, for the construction and putting into operation of said railway, is hereby extended to the first day of July 1870" - *Charter Amendment*



Down mountain view from new platform (~1869)  
- S. T. Adams photo / Conrad Ekstrom Jr. Collection

### July 17th

**MWR Directors Meet:** “At a meeting of this corporation, held at the White Mountain House on the 17th inst., the following Directors were chosen: Sylvester Marsh of Littleton, President; John E. Lyon of Boston, Treasurer; Charles Lane of Laconia, Clerk; Nathaniel White of Concord, Onslow Stearns of Concord, Henry Keyes of Newbury, Vt., E. A. Straw of Manchester, Walter Aiken of Franklin. The rate of fare from the White Mountain House or Crawford House up Mount Washington and back (over both carriage road and steam road) was fixed at six dollars (~\$120 today). It has been proposed to build up the side of the Rigi (Switzerland), and Mr. Otto Gruninger, a Swiss engineer, has been examining the Mount Washington Railway the present season with a view to construction of the same upon Mr. Marsh’s plan. The length and inclination of the road will be about the same.” - *Laconia (NH) Lake Village Times* - Sat, Jul 24, 1869 pg. 2

### Railroad Layout Team:

Mount Washington Railway Co.

Directors meet at the White Mountain House and vote “that John E. Lyon, Nathaniel White and Walter Aiken be a committee with full power for and in behalf of this corporation to lay out its railroad not exceeding eight rods in width, on such route within the limits for scribed by its charter as they may deem most suitable; and to make return of said location to the Secretary of State as provided by law. - Charles Lane, Clerk”

- *New Hampshire State Archives*

**Excursion:** “Thirty or more persons made a railroad excursion up Mt. Washington on Saturday (7/17), and dined at the Tip Top. The press of Boston, Portland and New York was represented, and all seemed delighted with the Marsh “sky railroad.” - *White Mountain Republic (Littleton, NH)* - Fri, Jul 23, 1869

**Tip Top Telegraphy:** “A telegraph office has been opened at the Tip Top House, Mount Washington, for the season.”

- *Vermont Chronicle* - Sat, Jul 17, 1869 pg. 5

### July 19th

Broadside proclaiming Cog Opened says “On and after Monday, July 19, 1869, Trains will run daily, between the Base and Summit of the Mountain as follows: Upward leaving at 10am and 3pm. Downward at 1p and 5p. Fare is \$3 (~\$60 today) - hand baggage is free - other baggage at reasonable rates. J.J. Sanborn - Mgr”

- [http://www.whitemountainhistory.org/Cog\\_Railway.html](http://www.whitemountainhistory.org/Cog_Railway.html)

### July 23rd

“*The wonder of the White Mountains...*” The *Philadelphia Evening Telegraph* reports “This stupendous work is now entirely finished and in operation from the base of the mountain to the Tip-Top House (*below*), in front of which the iron horse may be daily heard snorting. It has been proposed to build a railroad up the side of the Rigi, in Switzerland, and Mr. Otto Gruninger, a Swiss engineer, has been examining the Mount Washington Railway this present season, with a view to the construction of the same upon Mr. Marsh’s plan.”

- *Philadelphia Evening Telegraph* Fri, July 23, 1869 pg. 1

# MOUNT WASHINGTON RAILWAY!

## Now Opened!!

1869. SUMMER ARRANGEMENT. 1869.

On and after MONDAY, July 19, 1869, Trains will run daily, between the Base and Summit of the Mountain as follows:

UPWARD. Leave the Depot at 10.00 A. M. and 3.00 P. M.  
DOWNWARD. Leave Tip-Top House at 1.00 and 5.00 P. M.

### FARES AS FOLLOWS.

From Depot to Summit,	8.00
“ “ Summit and back,	3.00
“ Summit to Depot,	2.00
“ Crawford or White Mountain Houses to Summit,	6.00
“ “ “ and back,	6.00
“ Summit to Crawford or White Mountain Houses,	4.00

All Hand Baggage FREE. Other Baggage at REASONABLE RATES.

Coaches, to and from the Crawford and White Mountain Houses, connect with each Train.

**J. J. SANBORN, Manager.**

July 19, 1869.

- *WhiteMountainHistory.org*