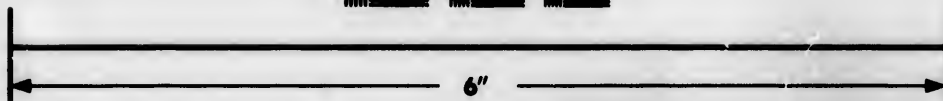
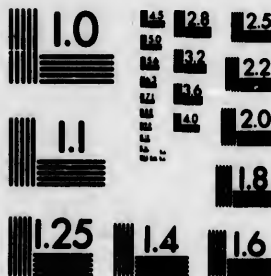


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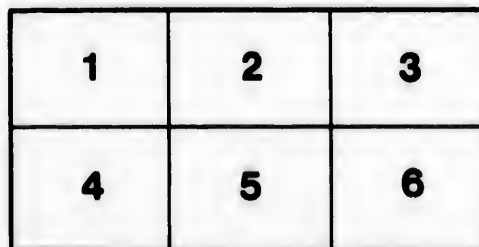
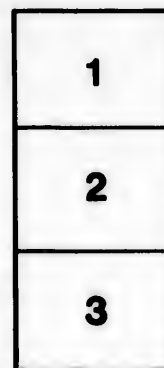
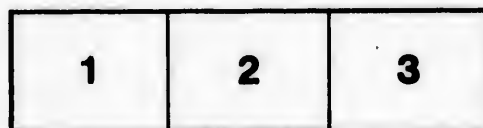
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CONNECTICUT AND PASSUMPSIC RIVERS

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## CONNECTICUT AND PASSUMPSIC RIVERS

# RAIL ROAD.

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Incorporated by the Legislature of the State of Vermont,—authorized to construct a Railroad from the mouth of White River in Hartford Vt. (opposite the town of Lebanon N. H.) following the valley of the Connecticut and Passumpsic Rivers to the North Line of the State at Derby.

At the mouth of White River it forms a junction with the Northern and the Vt. Central Railroads.

### THE ROUTE

Of the Connecticut and Passumpsic Rivers Rail Road for 75 or 80 miles from the mouth of White River, as will be seen by the accompanying map, is more direct than that of any other Railroad of equal length in the Northern or Middle States. Thence north, between the town of Burke and the line of the State at Derby, three different routes have been proposed, only one of which has been surveyed. The results are favorable as shewn by the map. An examination of the other proposed routes may result in a reduction of Grades and an essential diminution of distance.

The valley of the Connecticut and Passumpsic Rivers, North of White River, forms the natural business centre, and the outlet of one of the best agricultural districts in New England, abounding also with available water power to any desirable extent. *More than twenty business villages*, many of them of considerable importance, are located upon the immediate line of the road within the first 75 miles.

The first forty miles, between the mouth of White River and the village of Wells River is under contract, and will be completed early in the fall of 1848. The maximum grade upon these forty miles is 26 4-10 feet per mile.

This division of the road, being in the most wealthy and populous portion of Connecticut river, north of Greenfield, Mass. and reaching at



Wells River a central point for a widely extended district, must prove immediately productive, and will insure the extension of the road beyond. Indeed the local business upon the line as far as St. Johnsbury, 20 miles north of Wells River, is sufficient to ensure ample profits upon the investment, irrespective of the connexion with the Canadian road.

The northern portion of the route passes through an equally productive country to Canada Line, where it will connect with the St. Lawrence and Atlantic Railroad, leading thence to Montreal.

#### THE CHARTER.

The act of incorporation is liberal and ample. The capital may be increased to \$3,000,000. The rates of toll may be established by the Directors—"Provided, however, that the Supreme Court on an application &c. may alter or establish the rates of toll for a term not exceeding ten years at any one time, and in such a manner that said corporation shall not receive less than twelve per centum per annum."

#### AGRICULTURAL PRODUCTIONS.

The following table of agricultural products is taken from the United States census of 1840. It embraces the counties of Caledonia and Orleans in Vermont, and — for the purpose of instituting a comparison — the county of Worcester in Massachusetts. Worcester County has been selected as being very generally known, and ranking high as an agricultural district.

	Caledonia County, Vt.	Orleans County, Vt.	Worcester County, Mass.	Average valuation
Number of Towns,.....	17	20	55	
Population,.....	21,891	13,634	95,313	
No. of Horses,.....	5,852	3,462	10,657	..\$75.00
No. of Cattle,.....	32,668	18,299	67,667	..\$15.00
No. of Sheep,.....	100,886	46,669	26,128	..\$1.50
No. of Swine,.....	18,991	9,750	26,272	..\$7.00
Bushels of Wheat,.....	52,109	33,315	45,759	..\$1.25
Bushels of Oats,.....	342,433	133,301	375,471	..35c
Bushels of Rye,.....	1,799	2,400	84,914	..75c
Bushels of Corn,.....	52,350	20,186	372,591	..75c
Bushels of Potatoes,....	1,066,848	569,855	1,146,092	..20c
Pounds of Wool,.....	183,198	107,580	70,069	..35c
Pounds of Sugar,.....	665,397	507,446	.....	..7c
Products of Dairy,.....	\$215,377	\$104,606	.....	.....
Tons of Hay,.....	67,077	37,291	124,939	..\$10

The value of these products varies in the different counties, but for the purpose of instituting a comparison, an average valuation has been assumed — and at the prices indicated, the county of Caledonia, with a

population of 21,891, and an area of 700 square miles, exhibits in the aggregate a valuation of \$2,045,306.—Equal to \$93.43 for each inhabitant. And the county of Worcester, with a population of 95,313, and an area of 1,500 square miles, a valuation of \$3,458,919.—Equal to \$36.30 for each inhabitant.

It is admitted that the proportion of the whole population engaged in agricultural pursuits is less in Worcester than in Caledonia County, but in proportion to the amount produced, the number thus employed is obviously much greater.

Again—While in Worcester County the agricultural resources are pretty fully developed, and no considerable increase can be expected in the articles enumerated,—in Caledonia County probably less than one third of the arable land is yet cultivated, and no doubt, with a Rail Road communication to the markets, the time will soon arrive when these articles of produce will be fourfolded.

Indeed, the increase has already been very considerable since 1840, and the capabilities of the county with its present population are adequate to a still greater increase, if the means for transportation to market were such as to encourage the production of a surplus.

These remarks have been confined to Caledonia County for the sake of the comparison with a well known district in Massachusetts, but they are equally applicable to the whole region traversed by the Connecticut and Passumpsic Rivers Rail Road.

**MINERALS.**

Iron Ore is found at several places along the line of the route, both in Vermont and New Hampshire. "In Piermont occurs an important bed of micaceous specular iron ore, which was examined with great care.—The beds of ore vary in thickness, from a few inches to three or four feet. An analysis shows the following result. In 100 Grains

Per oxide of iron,.....	93,5	Grains
Titanic acid,.....	3,8	"
Silica,.....	2,7	"
	100	

Equal to 64,8 per cent of pure metallic iron."—*Dr. Jackson's Geological Report.*

The Franconia Iron works, twenty miles from Wells River are well known.

At Troy Vt. occurs an extensive vein of magnetic Iron Ore. "It is,"

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8 .. \$7.00
2 .. \$1.25
9 .. .35c
1 .. .75c
4 .. .75c
1 .. .20c
2 .. .35c
9 .. .7c
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says Mr. Adams in his Geological report, "a nearly perpendicular vein which conforms in direction to the general direction of the serpentine range, and has been traced with more or less interruption for the distance of two miles. It is from three to five feet wide, and does not appear to be in danger of being exhausted in the direction of its length or depth.

In 1844, 600 tons of Pig iron and castings were made at the Troy furnace, and machinery has since been erected for the manufacture of wrought iron.

Analysis—Peroxide of Iron.....	81,20
Protoxide of Iron.....	13,37
Titanic acid.....	4,10
Silica.....	1,33
	100
Metalic Iron.....	66,62"

*Lime Stone* and shell marl are common in most of the towns on the Vermont side of Connecticut River, and extensive quarries of Lime stone exist in Haverhill, Lisbon, Orford, Lyme and other towns on the New Hampshire side of the river. According to Dr. Jackson, the Lime manufactured at Haverhill compares favorably with the Thomaston Lime. An analysis of the rock shows 55,729 per cent. of pure lime.

*Free Stone.* "Two miles north of Orford," says Dr. Jackson "occurs an immense bed of compact talcose slate, which answers perfectly for *Soap Stone*, and is quarried to some extent, but may by proper management be made to furnish an almost unlimited quantity of that valuable material."

*Copperas.* In the town of Strafford, Vt. some 2000 tons of Copperas have been manufactured per annum and sent to the Boston market. The quantity is to be increased the present year to 4000 tons, and the ore is inexhaustible.

*Roofing Slate* of good quality is found in the town of Thetford, Vt. near the line of the Rail Road.

#### STATISTICS OF FREIGHT.

Nearly accurate statistics of freight to and from market in the towns which will be tributary to the Passumpsic Rail Road have been obtained. These towns embrace the counties of Caledonia, Orleans, Essex, and half the county of Orange in Vermont, and the towns bordering upon Connecticut River in the counties of Grafton and Coos, N. H.

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These freights it should be noticed have occurred while the average distance of transportation by teams was 80 to 100 miles.

A glance at the map will show that the amounts of freight in the different sections embraced have not been in proportion to the population, nor do they indicate the relative productiveness of the soil. But they are in proportion to the relative proximity of the towns to Rail Road or water communication.

According to well established data, the amount of freights and travel upon any thoroughfare will be immediately quadrupled upon extending to it Rail Road facilities.

While therefore this result may be confidently expected in the present case, the prospective increase of business after the completion of the Rail Road must be rapid and almost unlimited, in view of the capacity of the country for agricultural productions and the immense water power along the line.

	<i>Valuation in 1846.</i>	<i>Population in 1840.</i>	<i>Tons of Freight.</i>
Nine towns in Orange County and } one (Norwich) in Windsor Co. }	702,694,67	16,659	9,947
Caledonia County.....	830,982,83	21,891	10,047
Orleans County.....	435,839,34	13,634	5,045
Essex County.....	141,835,00	4,226	952
			<hr/>
			25,991
Thirteen towns in New Hampshire } bordering upon Connecticut river }			11,159
			<hr/>
		Tons,	37,150

The number of passengers in Stage Coaches which pass Haverhill and Newbury per year will vary little from 12,480.

The estimate of freights embraces agricultural products—merchandise, including Salt, Plaster, Flour, &c.—Copperas, Lime and Free Stone, and manufactures except Lumber.

The quantity of manufactured Pine Lumber ascertained to pass down the Connecticut at Newbury and Haverhill annually, is on an average—  
in Tons.....26,000

This article is greatly deteriorated by being rafted and lying so long in water as is required to reach a market—which consideration in connexion with the uncertainty of the navigation of the river, the length of time required, and expense of tolls, raftsmen &c. render it certain that all the most valuable kinds of Lumber will be transported by the Rail Road so soon as it is completed. These statistics it will be seen have reference only to way freights along the line, to which should be added a

further amount from the "Eastern Townships" of Canada which are to a considerable extent under a high state of cultivation.

But while this local business is important and will be continually increasing, it will embrace but a moiety of the business of the road when it shall have formed a connexion with the Canadian Rail Roads now projected and in course of construction:

*The St. Lawrence and Atlantic Rail Road, extending from Montreal through the "Eastern townships" to the Line, is already under contract from Montreal to Acton—45 miles, and the work of grading has been commenced. A portion of the iron for the track has been purchased, and this division of the road is to be completed in 1846. The construction of the remaining distance to the line will be prosecuted subsequently, coincident with the work on this side of 45°. This St. Lawrence and Atlantic Rail Road is authorized to construct a branch from a point below Sherbrooke to connect their Rail Road with the city of Quebec. Sherbrooke is thirty miles from the northern terminus of the Connecticut and Passumpsic Rivers Rail Road, and the point for the intersection of the Quebec branch is nearly equidistant from Quebec and Montreal—about eighty-five miles.*

The country being nearly level, and favorable for constructions, this branch to Quebec can hardly fail of being built; especially as it will form an avenue from that city not only to the Atlantic cities, but also indirectly to Montreal, by Rail Road.

When these works shall have been completed it will be seen that the Connecticut and Passumpsic Rivers Rail Road must do an extensive through business to Montreal, while it will form almost a direct line for passengers from Quebec to Boston, and, in connexion with the lines in the valley of Connecticut, to the city of New York.

The amount of pleasure travel from the United States via Niagara Falls and Lake Champlain to the cities of Montreal and Quebec is very considerable and is annually increasing.

When therefore the lines of Rail Road now in progress of construction shall have been completed, it is reasonable to suppose that either in going or returning, a majority of this pleasure travel will pass over the Passumpsic line.

June 1, 1847.

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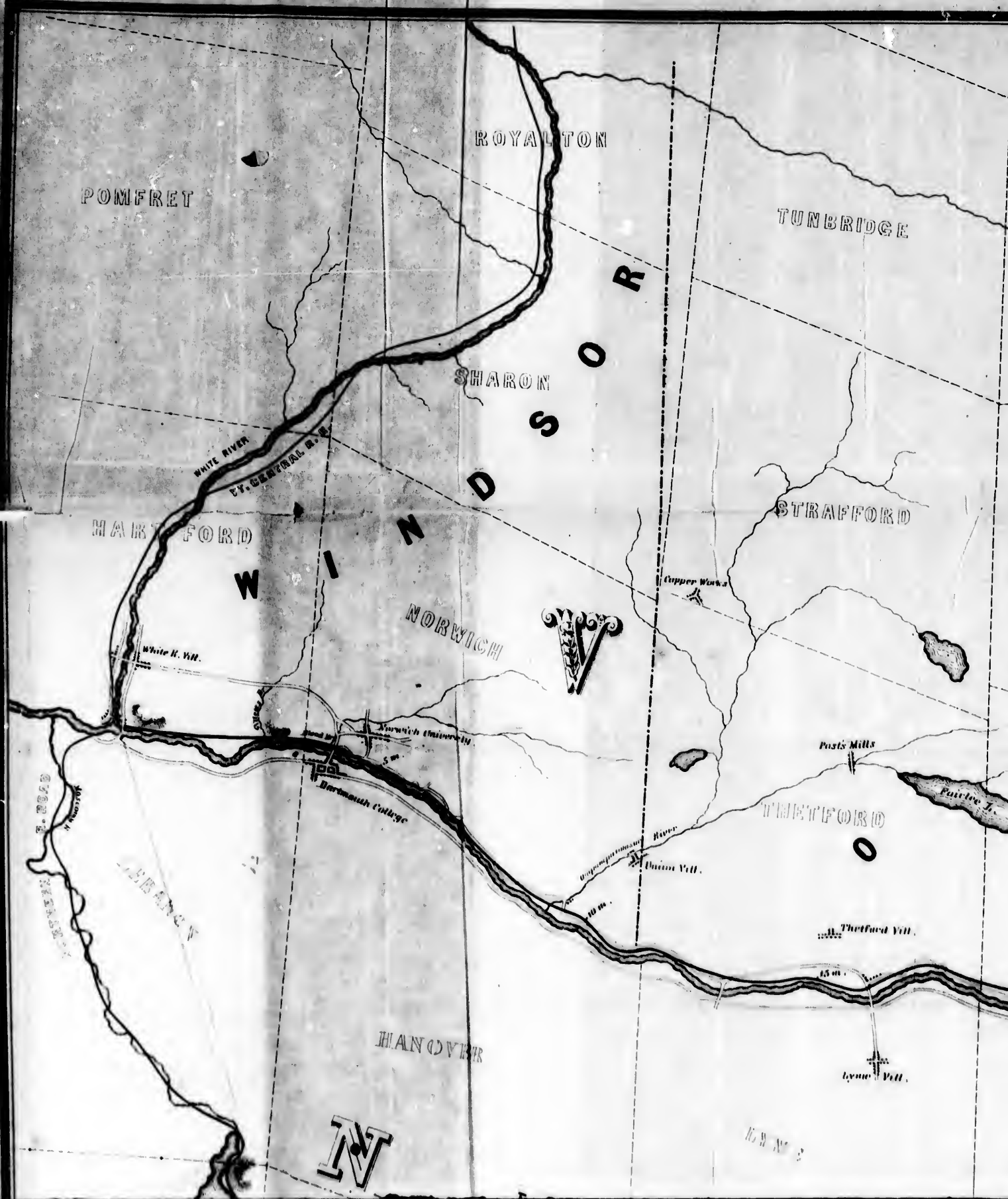
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WINDSOR

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Copper Works

White H. Vill.

Norwich University

Dartmouth College

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Fairlee I

Theford Vill.

BRADFORD

NEWBURY

3 m.

Fairlee II

Summit Vill.

Theford Vill.

Lyne Vill.

CONNECTICUT RIVER

Paramount Vill.

South Newbury



GALAIS

PLAINFIELD

MARSHFIELD

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# MAP & PROFILE OF THE ROUTE SURVEYED FOR THE CONNECTICUT & PASSUMOTTUCK RAILROAD

Scale of Map 10 000 Ft. to an Inch.  
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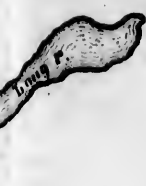
J. H. MILLER FOX, ENGINEER.

1876.

J. H. Buffin's Lithog. & Engr.

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# PROFILE SURVEYED FOR THE MASSUMPSIC RIVERS ROAD.

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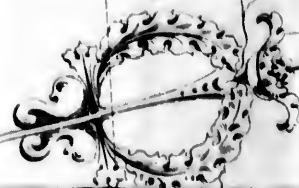
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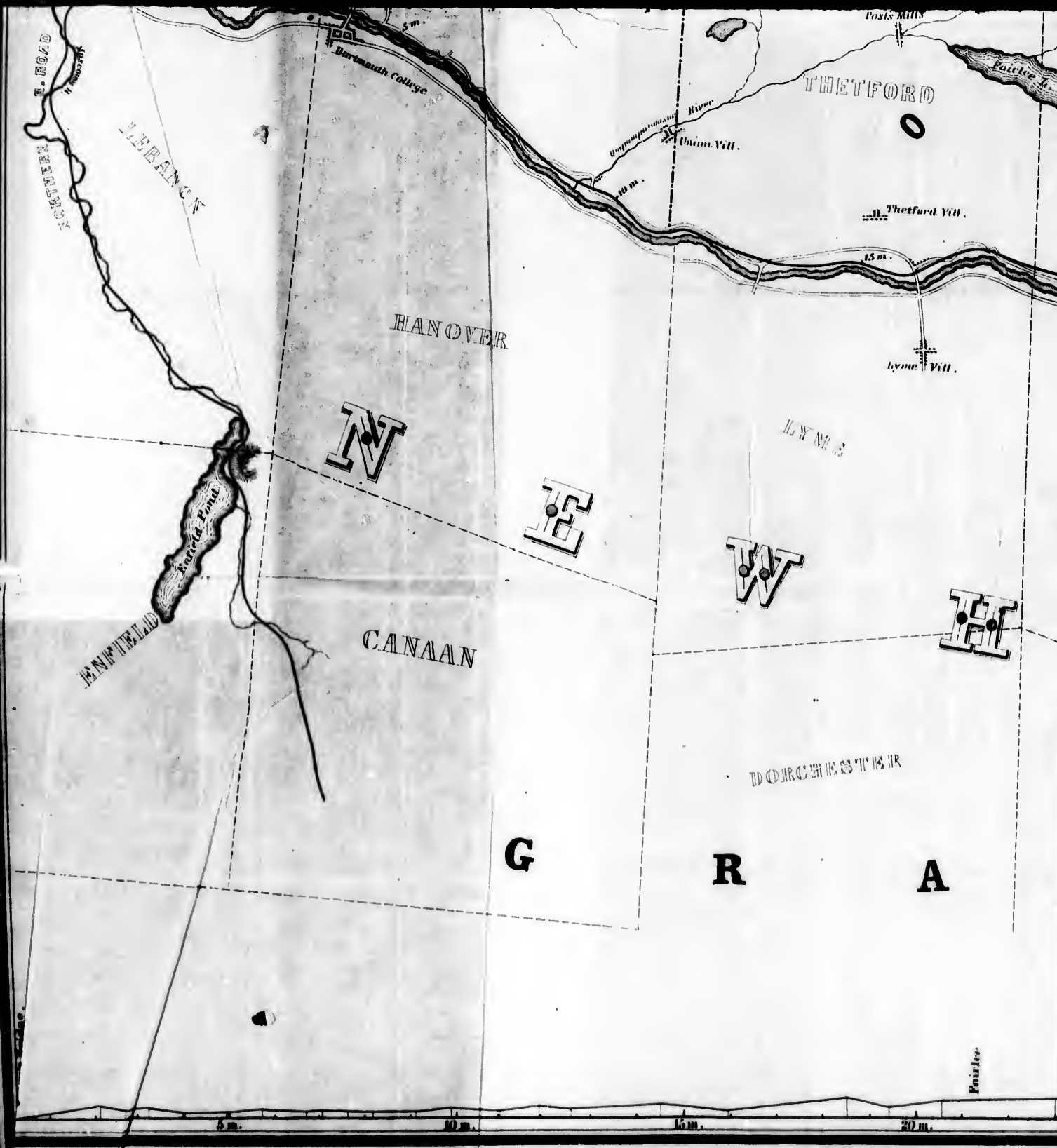
LYPON

Miller's River

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MASSUMPSIC RIVER





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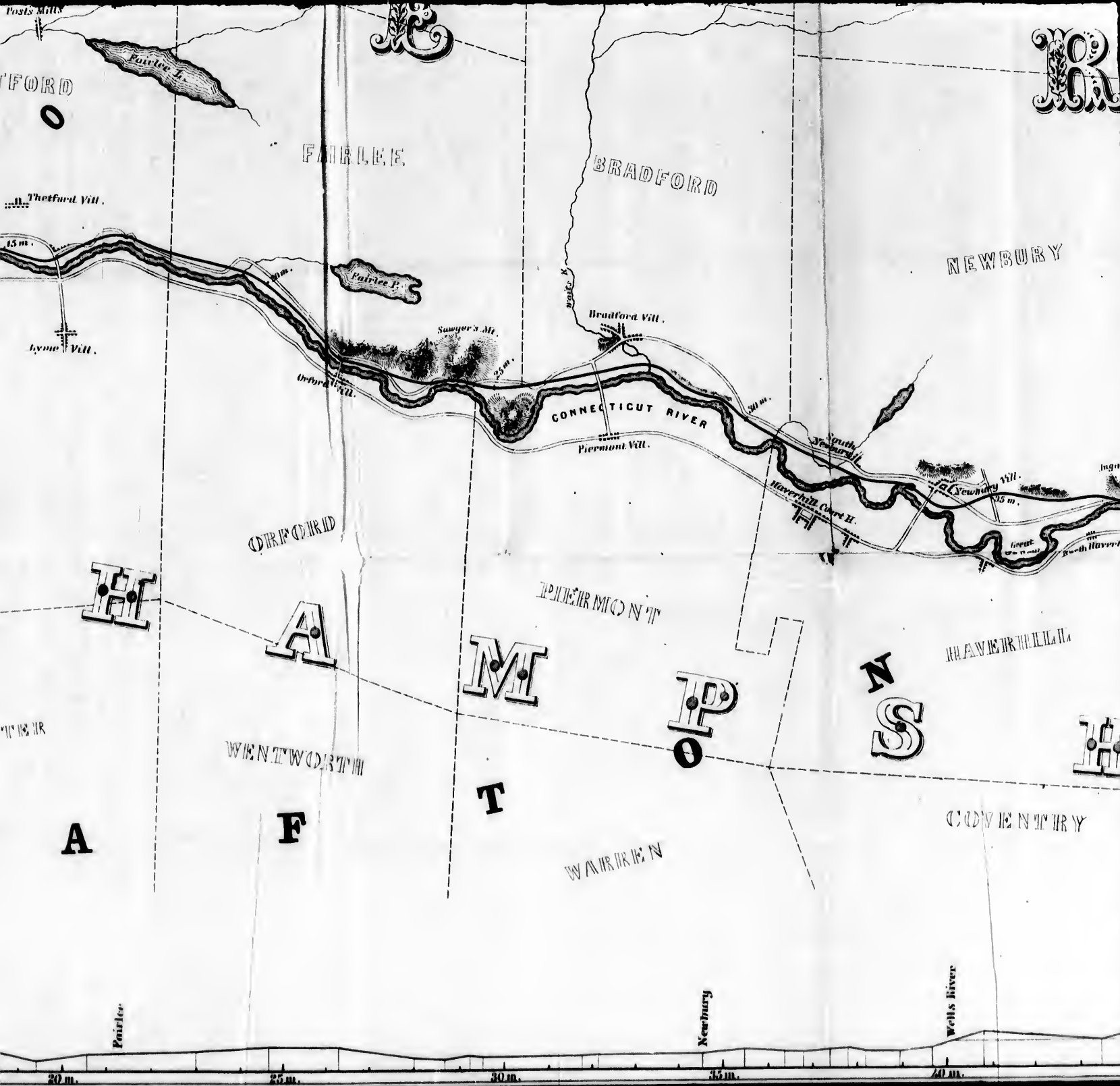
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South Ferrisburgh  
Haverhill Centre

Newbury Vill.

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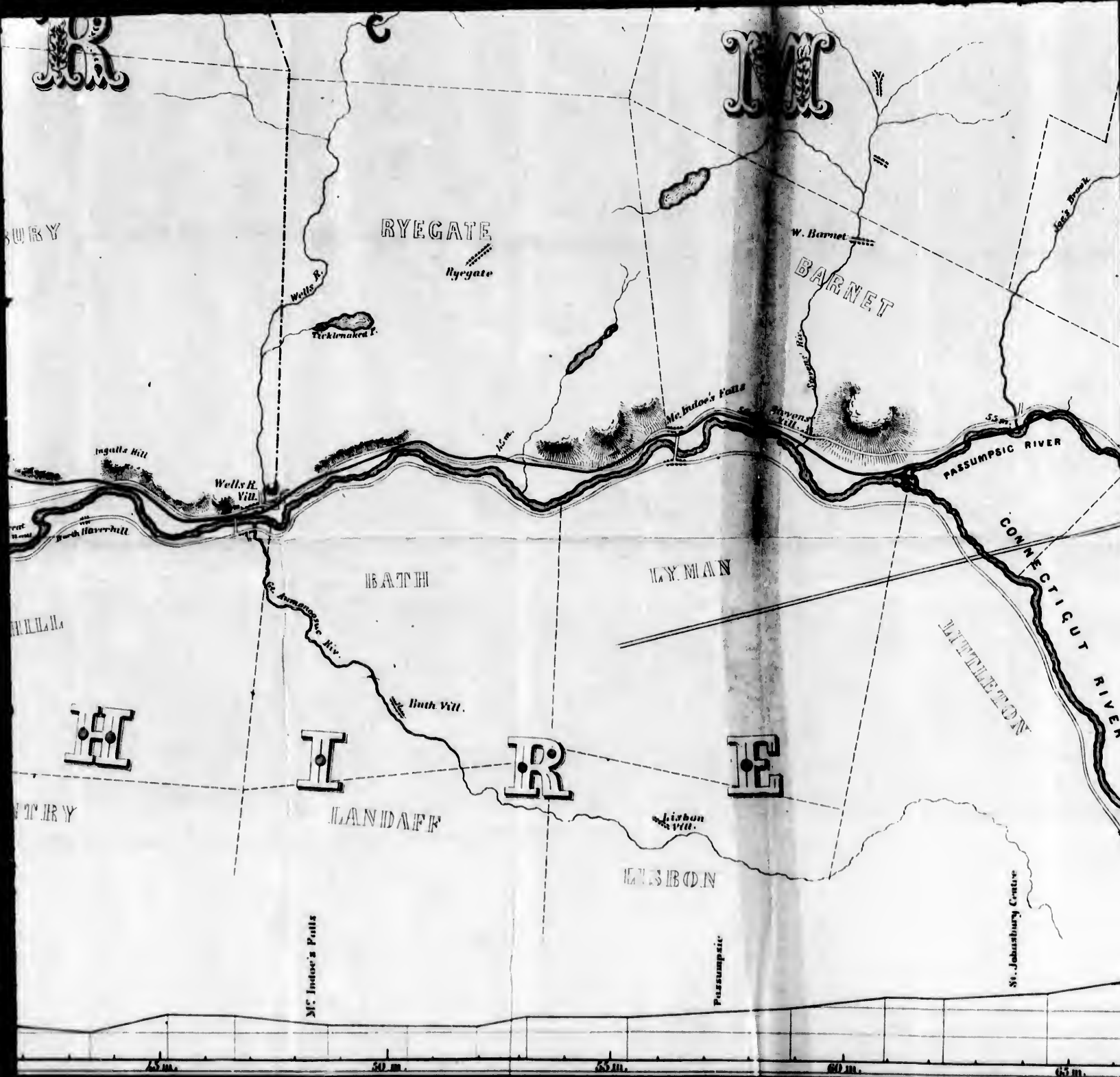
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Wells River

20 m. 25 m. 30 m. 35 m. 40 m.



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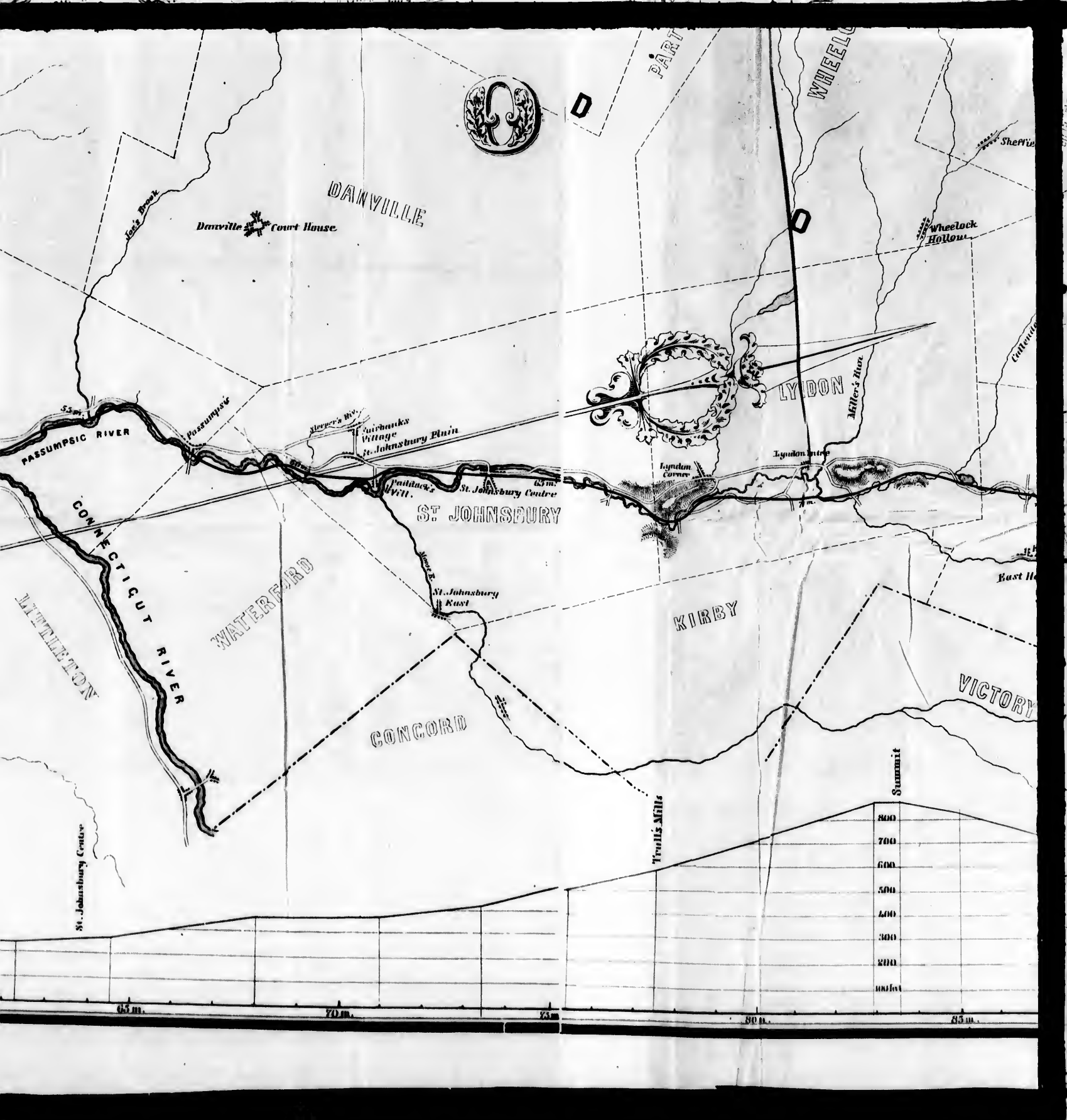
45 m.

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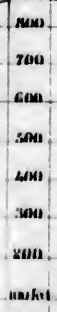
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