tant item, but knowing the Central's immense traffic, people will at once make comparison with the Pennsylvania, which maintains a system at large expense on a mileage greater than the Central's main line. There is also a suggestive question for all directors in the differences of practice observable in different parts of the same system of roads. Instances of the most divergent practice on roads owned or controlled by the same interests are as common and noteworthy as they are inexplicable; but the spectacle of the West Shore, a Vanderbilt road, using the block system, and the New York Central, a much larger Vanderbilt road, doing without it, is a glaring instance of this state of things. The New York Central acquired control of the West Shore after its block system was established, and of course the usual arguments in favor of a conservative policy apply here; but when it is considered that the block system entails a large annual expenditure, the query at once comes up whether the practice of the two roads should not be made more nearly uniform. If the great expense is unwarrantable, why should not the directors abolish the system on the poor West Shore? If the system is a necessity in safe train working, why should it not be adopted on the more prosperous New York Central?

The matter came up again on Nov. 29 (page 789) in a discussion of the decision of the New York State railroad commissioners. As the weak position taken by the commissioners then may have had its influence on the action (inaction) of the New York Central directors this phase of the question is not without interest at this time. We then said:

. . . The Board of Railroad Commissioners "has been investigating the matter of block systems, but has not yet sufficient data to express a positive opinion on the subject." It is difficult to understand this paragraph. The only practical arguments against the block system, certainly the only ones on a road like the Mohawk Division of the Central, where trains of different speeds have different tracks, are delay to trains and expense. With a ten-minute interval, *which the Commission recommends*, passenger trains are 6 and 8 miles apart at 35 and 50 miles an hour, respectively. The Central could, therefore, establish blocks at four or five mile intervals, and thus increase the safety of its trains without hindering them in the least, and, in fact, could reduce the interval for the faster trains. Certainly every one agrees that a space interval is better than a time interval; and we think the substantially unanimous opinion of the most intelligent railroad officers is that this is true when the interval is maintained by a good block system, like the Pennsylvania's or the West Shore's, even in the absence of electric interlocking. So much for the question of delays. As to expense, let the Central look at the West Shore. For the first 20 stations west from Albany the Central would have to establish only two new stations to make blocks averaging less than four miles in length, the maximum being about six and a half miles. This is a crude calculation, which the officers of the road could doubtless improve upon. It does not appear that a station employee need spend any more time blocking trains than is now given to the indicators, and station operators attend to block signals in very many cases on other roads. The position of the Commissioners is therefore inexplicable. With the experience of the past 10 years in this country and of the past 25 in Great Britain, are they still without the basis for an intelligent opinion? Perhaps the financial question troubles them; but why should that modify a technical standard?

Our prediction that the public would ask certain pertinent questions has in one sense failed to come true. That is, the public did not ask the questions with sufficient emphasis to amount to much. The inadequate action of the New York public's special representatives, the Railroad Commissioners, has just been referred to. But the daily press has taken up the Hastings case with a highly satisfactory energy, wisdom and moderation, and decided results already appear to be in sight. The officers of the road tell the reporters that they will at once put in use the best available system.

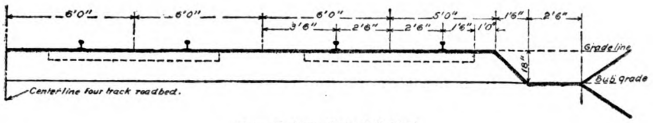
Certain Standards of the N. Y., N. H. & H.

In our issue of Aug. 14, 1891, appeared a pretty comprehensive account of the work in progress on the New York, New Haven & Hartford. Herewith will be found illustrations of certain track and bridge standards.

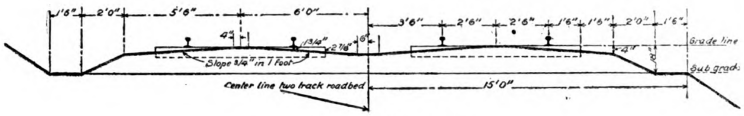
The cuts show the manner of ballasting with either gravel or stone. The slope of the former is such as to give good drainage, the space between the tracks being graded down uniformly and the water allowed to run out at the side through boxes at stated intervals. With stone the coarseness of the material gives ample drainage of itself without any slope, so that the dressing is straight across at the tops of the ties. This latter is shown for four tracks with a spacing of 12 ft, centres throughout. The plane of the sub-grade and the line of bank slope bear the same relation to the rails with either kind of ballast. This matter of having 18 in. of ballast below the top of the tire is, theoretically, about the right amount; but in practice this figure is not very frequently found. Where a roadbed is old and has received attention the better quality of ballast occasionally extends down quite a distance, when it gradually becomes poorer from being worked into the soil. This mixed stage, however, forms a good foundation on which to build.

Other cuts show in detail the manner of protecting bridges and trestles by inside and outside guards. Both sets of guards are curved from the same point, those inside being brought together at a cast shoe which is securely fastened down to the ties, and acts as a rider for anything hanging down from the car body or truck. The spread of the outer timber guards is 10 ft. 4 in. at the end, or 8 ft. forward of the shoe, thus requiring several extra-length ties.

The spacing of the bridge ties is here different from the practice followed on some lines, 4 in. being occasionally met with through well timbered sections. The well-established form of angle iron corner for the timber guard is adhered to. The very gradual drawing together of the guards as here shown will guide a truck to a position parallel with the rails, where the short flaring guards so often used allow the truck to strike them at such a large angle as to cause mounting of the guard by the forward wheel, thereby proving of little or no protection. This angle should in all cases be kept so small as to give a glancing blow to any object traveling along the track, rather than allowing any resistance from the guard to this longitudinal movement.

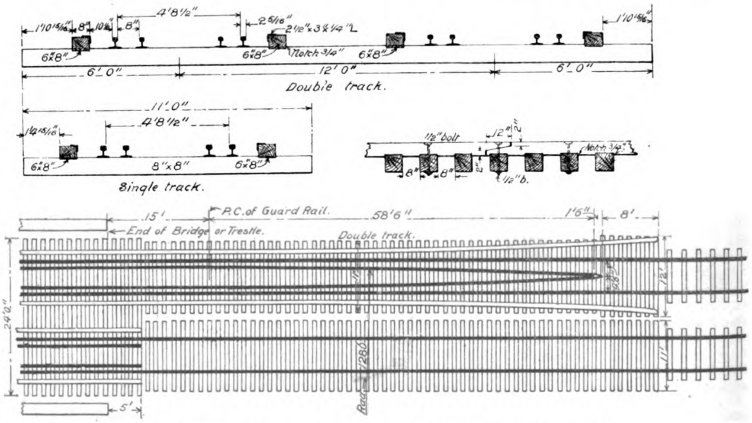


Cross-Section, Gravel Ballast.



Cross-Section, Stone Ballast.

Standard Cross-Section of Roadbed—N. Y., N. H. & H.



Standard Floor and Approach or Bridges and Trestles—N. Y., N. H. & H.

Although this company has abolished nearly thirty grade crossings during a single year, it has not been able to get at any standard size of bridge truss for use over such roadways, owing to the many different conditions arising at the various points, and from the unwillingness of the selectmen in the townships, and the landowners along the line, to allow any changes in the direction or measurements of the highways, or their point of crossing. If it were possible to always have the crossing at right angles, and of one or two standard widths, by the purchase of land, in the case of roads crossing at an acute angle, and running the road along the track, and then directly under (or over), the saving would amount to quite an item in time and money. By this reduction in the length of the bridge, and bringing down to a standard, the shops could keep ahead sufficiently to avoid delay, and should the immediate erecting of a structure at any place be made imperative from any cause, the supply might be drawn upon to advantage.

The Hastings Collision.

A rear collision of passenger trains on the New York Central & Hudson River road, a short distance north of Hastings, N. Y., 20 miles from New York City, on the night of Dec. 24, was the most disastrous on that road since the wreck at New Hamburg in 1879, 12 persons being killed or fatally injured and eight others badly hurt. Two of the killed and two of the injured were trainmen. The details of the collision, as reported by the officers of the road, are as follows, though the press despatches state that there had been a less serious collision near Sing Sing about two hours previously, causing a blockade of many trains, and that this blockade led to the stoppage which resulted in this collision. Train No 93 northbound, stopped at Dobbs Ferry, 1½ miles north of Hastings, about 8 p. m., to make slight repairs on the engine. The station distant signal was thrown to danger and the next northbound passenger train, No. 45, the Niagara Falls Express, was stopped by this signal and the brakeman went back with a red light to Hastings station. The next train due was a local passenger train, which would stop at Hastings, and the brakeman, evidently relying on this regular stop, went into the station and entered into conversation with the agent. But the local train was omitted that day on account of the blockade at Sing Sing, and the next train to come was No. 7, the St. Louis Express, and this came on and rushed past Hastings at full speed, while the brakeman was inside the building. He exclaimed, "That's one on me," and hurried out, but was too late to stop the train. Train 45 was standing on a curve and the St. Louis Express ran into it at probably 30 or 40 miles an hour; and the engine, a 60-ton eight-wheeler, crashed through the whole length of a heavy Wagner sleeping car, which was split open longitudinally. There were in this car 20 passengers, the conductor and the porter, of whom 20 persons were killed or injured, as above noted. Some one or more attachments of the boiler of the locomotive were broken off and considerable steam escaped; the reports indicate that most of the victims were badly scalded. It is asserted that the escape of steam was at the safety valve. The brakeman, Albert E. Herrick disappeared, and at last accounts had not been found, but he sent a letter to the superintendent saying that he put torpedoes on the track "about half way back" [to Hastings?], and that he left his red light near the track when he went into the Hastings station.

Apportioning the Cost of Joint Interlocking Plants.

The Illinois Railroad Commissioners have issued a pamphlet giving their decisions in the recent cases which they have adjudicated under the law of 1891 prescribing the use of interlocking signals at grade crossings of one railroad with another. These decisions have been briefly reported in the *Railroad Gazette* as they were published, and it will be remembered that a number of them involved more than two roads each. The pamphlet gives the general specifications prescribed by the commissioners for matters of detail in each case, but these are not always intelligible without the drawings, which are not published. The main discussion in the pamphlet is that concerning the reasons for the commissioners' action in the matter of a triangular crossing at Paducah Junction, near Pontiac, where the Chicago & Alton, double track, the Wabash, single track, and the Illinois Central, single track, cross each other. Each road crosses the other two, making a triangle, and the crossings, from 600 to 1,000 ft. apart, can be operated by signals worked from a single tower. The Illinois Central stops its trains, either for a station or for coaling, before crossing the Wabash in both directions and before crossing the Chicago & Alton in one direction. The trains of the other roads make no stops here except for the crossings. The Alton desired the expense to be thrown entirely upon the other roads, deciding the ques-

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tion according to seniority, the Alton being the oldest road. It is claimed that the principle of seniority applies because the statute prescribes it in cases where a *new* crossing is desired *hereafter*. The other two roads desired the first cost to be apportioned equally and the expenses of operation according to the number of trains. Another basis proposed to the Board was that each company should pay in proportion to the number of main tracks, which rule has been applied by the commissioners in one previous case. Still another proposed plan was to assess the cost in proportion to the number of levers of which each company receives the benefit. The commissioners discuss these propositions at considerable length, but finally decide that each company must pay one-third of the original cost and one-third of the maintenance. They throw out the argument based on seniority, because, they say, it must be assumed that the settlement of damages when the oldest road was originally crossed by the new comer must be now regarded as having been final and not to be re-opened. The seniority theory would be impracticable in cities where a single interlocking plant may cost say $50,000, which the youngest road would, of course, be too weak to pay. For the roads to pay in proportion to the number of trains would often be grossly unjust, as where one road has 100 trains a day and the other, say, half a dozen. Under this rule the basis of apportionment would constantly fluctuate. Dividing by the number of tracks must also often be inequitable, as an important road might have few tracks at a crossing, while a poor road might be under the necessity of having a large number at that particular point. If the commissioners were to decide the expense according to the number of levers in this case, the Illinois Central, deriving the least benefit from the machine, would have to pay the largest share, for the plan provides 13 levers for that road, 12 for the Alton and eight for the Wabash. The commissioners are satisfied that if they were compelled to adopt an inflexible rule for all cases it ought to be on the basis of an equal share to each company.

Railroad Building In 1891.

Our usual summary of the railroad building of the year is given in this issue, with an attempt, necessarily not so complete, and of less comparative value, at a forecast of the lines on which the construction of the present year is to be carried on. The table, being made up before the close of the year, does not include complete returns from several companies which do not have statistics ready until January. A supplemental list of additions will be published in this month. Following is a table of the new mileage by states:

Alabama	175.1	Oklobama	5.7
Arkansas	68.5	Oregon	53.8
California	151	Pennsylvania	211.7
Colorado	117.1	Rhode Island	4
Florida	55	South Carolina	189.5
Georgia	212	South Dakota	92.1
Idaho	20.4	Tennessee	165.7
Illinois	68	Texas	158.2
Indiana	17.6	Utah	79
Iowa	28.4	Vermont	15.5
Kansas	1.4	Virginia	182
Kentucky	39.5	Washington	232.2
Louisiana	158.4	West Virginia	191.2
Maine	6	Wisconsin	111.9
Maryland	3	Wyoming	59.4
Massachusetts	7.8		
Michigan	97.4	Total U. S.	4,011.5
Minnesota	111.6	Alberta	151.5
Missouri	41.2	British Columbia	67
Montana	186.2	Manitoba	90
Nebraska	45	New Brunswick	21.5
New Hampshire	10.5	Nova Scotia	7
New Jersey	57.5	Ontario	70.3
New Mexico	19.5	Quebec	55
New York	161.3	Mexico	350.9
North Carolina	105.9		
North Dakota	101.3	Total Foreign	823.2
Ohio	131.7	Grand total	4,818

Train Accidents in the United States in November.

COLLISIONS.

REAR.

1st, on Cincinnati, New Orleans & Texas Pacific, at Oakdale, Tenn., a freight train standing in the yard was run into by a following freight, damaging engine, caboose and one car. It is said that the engineman was asleep, but that he used the air brake, which he had connected to seven cars, in season to mitigate the severity of the collision materially.

2d, on Cincinnati, New Orleans & Texas Pacific, at New River, Tenn., a freight train was run into at the rear by an empty engine which became uncontrollable on a descending grade. The brake rigging of the engine and one eccentric had been broken some time previously and the engine was running with one side; in going down grade the engineman in reversing the lever to regulate the speed disabled the other side and then was unable to stop.

2d, at 5:45 a. m., on Richmond & Danville, at Danville, Va., freight train No. 18 ran into the rear of a switching freight on a bridge over Dan River. A derailed coal car was thrown against the superstructure, breaking some of the side struts and causing the bridge to fall, the colliding engine and four cars going down a distance of 40 ft. One trainman killed and three injured, one of whom afterward died of his injuries.

3d, on Pittsburgh, Fort Wayne & Chicago, at Alliance, O., a passenger train ran over a misplaced switch and into the rear of a freight train entering a siding, badly damaging the engine and caboose and derailing several cars. Engineer and fireman injured by jumping.

3d, on Philadelphia & Reading, near Sinking Springs, Pa., a freight train ran into the rear of another freight, damaging several cars and injuring a brakeman.

4th, on Missouri, Kansas & Texas, near Waco, Tex., a freight train broke in two, and the hind portion was run into by a following stock train, making a pretty bad wreck, in which 4 drovers were killed and an engineer injured.

NEW RAILROAD CONSTRUCTION—JANUARY 1, 1891, TO JANUARY 1, 1892.

Name of Road.	Track laid between Jan. 1, 1891, and Jan. 1, 1892			Under contract or located,		
	From	To	Miles	From	To	Miles
Abbeville & Waycross	Bowen's Mill, Ga.	Lulaville, Ga.	5.5	Lulaville, Ga.	Du Pont, Ga.	
Abingdon Coal & Iron				Abingdon, Va.	Damascus, Va.	15
Adirondack & St. Lawrence	Poland, N. Y.	North	4			
" " " "	Remsen, N. Y.	North	15	Poland, N. Y.	Malone, N. Y.	100
" " "	Tupper Lake, N. Y.	Saranac Lake, N. Y.	15			
" " "	Malone, N. Y.	South	1			
" " "	Malone, N. Y.	Valleyfield, Que.	31			
Alabama Grand Trunk				Montgomery, Ala.	Equality, Ala.	30
Albany & Astoria				Albany, Ore.	Astoria, Ore.	173
Albany, Florida & Northern	End of track	Cordele, Ga.	18			
Alleghany & Kinzua	Tagus, N. Y.	Frecks, N. Y.	2.3			
Altoona & Wopsononock	Near Altoona, Pa.	Wopsononock, Pa.	5.5	Wopsononock	Coalport, Pa.	16
Anderson Belt					in Anderson, Ind.	2
Archer	Archer, Fla.	Early Bird mine	28			
"	Main line	Phosphate mines	5			
Arkansas Midland				Indian Bay, Ark.	Pine City, Ark.	12
Arlington & Monte Christo				Arlington, Wash.	Monte Christo, W.	48
Asheville & Craggy Mt.	Asheville, N. C.	Toward Craggy Mt.	2	End of track	Craggy Mt., N. C.	4
Atchison, Topeka & Santa Fe:						
Southern California	Asylum, Cal.	Mentone, Cal.	6.7			
Atlantic Coast Line	Fayetteville, N. C.	End of track	13	End of track	Rowland, N. C.	30
" " "	Latta, N. C.	End of track	5	Washington, N. C.	Bethel, N. C.	25
				Latta, N. C.	Hage, N. C.	18
Augusta Belt Line				Augusta, Ga.	Murray Hill, Ga.	7
Baltimore Belt				Camden Sta., Balt.	Bayview Junc., Md.	7
Baltimore & Ohio	Milford, Pa.	Stone quarries	3	Uniontown	Morgantown, W. Va.	22
Akron & Chi. Junc.	Near Warwick, O.	Chicago Junc., O.	30			
Bangor & Aroostook				Brownville, Me.	Presque Isle, Me.	135
Bath, Small Point & Popham				Bath, Me.	Phippsburg, Me.	13
Beardstown, Ft. Madison & S. C.				Beardstown, Ill.	Fort Madison, Ia.	65
Bear Lake & Eastern				Maple Grove, Mich.	Manistee Crossing	2
Bellingham & Brit. Columbia	Nooksack River, W.	Sumas City, Wash.	8			
Bergen Neck				Jersey City, N. J.	Van Buskirk's Pt.	6
"				Bayonne, N. J.	Kill von Kull, N. J.	2
Birmingham & Jones Valley	Birmingham	Avondale, Ala.	3			
Bishopville	Bishopville, S. C.	Lucknow, S. C.	8	Lucknow	Monroe, N. C.	55
Black River				Proctorsville, Vt.	Claremont Junc., Vt.	29
Bloomsburg & Sullivan				Jamison C., Pa.	Ganoga Lake, Pa.	15
Blue Mountain Mineral	Jacksonville, Ala.	North	4			
Bonham Rapid Transit	Bonham, Tex.	Fair Grounds	3			
Boothbay				Boothbay, Me.	Newcastle, Me.	13
Boston & Maine				Fells Sta., Mass.	Stoneham, Mass.	3
Bowden Lithia Springs Short Line	Lithia Springs, Ga.	Austell, Ga.	1.1			
Bridgeport & Decatur				Bridgeport, Tex.	Decatur, Tex.	12
Bristol	N. Haven Junc., Vt.	Bristol, Vt.	6.5			
Bristol Belt Line	Fairmount, Tenn.	Bristol, Va.	5	Bristol	North Bristol	4
Bristol, Elizabeth & N. C.	Bristol, Va.	Furnace	2	Bristol, Tenn.	Butler, N. C.	36
" " "				Elizabethton, N. C.	Mountain C., Tenn.	40
Brocky., Westp't & S. Ste. Marie				Westport, Ont.	Palmer Rapids	80
Brookfield & Northern				Miami Mo.	Centerville, Mo.	98
Brookline & Pepperell	W. Groton, Mass.	North	2	W. Groton	Pepperell, N. H.	13
Brunswick, Western & Southern				Southport, N. C.	Wilmington, N. C.	20
Buffalo Dock & Connecting				Hamburg Canal, N. Y.	City Line, Buffalo	7
Buffalo, Rochester & Pittsburgh				Howard Junc., Pa.	Bradford, Pa.	20
Cairo & Kanawha Valley	Cairo, W. Va.	Hughes River	5	Hughes River	Grantsdale, W. Va.	
Caldwell	Great Notch, N. J.	Caldwell, N. J.	4.5			
California & Nevada	Orinda Park, Cal.	Bryant, Cal.	2.5	Bryant	Walnut Creek, Cal.	10
Camden, Watertown & Northern				Camden, N. Y.	Watertown, N. Y.	64
Canadian Pacific	Mission Junc., B. C.	Huntingdon, B. C.	10			
" "	Hartney, Man.	Oxbow, Man.	85	Oxbow	Souris coal fields	32
" "	Methven, Man.	Nesbitt, Man.	6	Deloraine, Man.	Napinka, Man.	18.3
" "	Pr. Alb. Sta., Sask.	McDow'll's M., Sask.	2.5			
Calgary & Edmonton	Red Deer R., Alb.	Edmonton, Alberta	94			
" "	Calgary, Alberta	Mosquito Ck., Alb.	56	End of track	Ft. McLeod, Alberta	110
Columbia & Kootenai	end of track	Nelson, B. C.	6			
Shuswap & Okanagan	Sicamous, B. C.	Okanagan L., B. C.	51			
Cape Breton				Sydney, C. B.	Louisburg, C. B.	30
"				Orangedale, Br.	Broad Cove mines	30
Cape Fear & Yadkin Valley				Mt. Cing, N. C.	Va. State Line	7
Carolina, Cumberland Gap & Chi.				Edgefield, S. C.	Greenwood, S. C.	34
Carolina Midland	Barnwell, S. C.	Allendale, S. C.	17	Barnwell	Waterboro, S. C.	45
" "				Sievern, S. C.	Batesburg, S. C.	17
Carolina Min. & M'f'g. Co.				Sylva, N. C.	Webster, N. C.	4
Central Counties	Glen Robertson, Que.	Hawkesbury, Que.	21			
Central of Georgia						
Mobile & Girard	Troy, Ala.	Thebs, Ala.	40	end of track	River Falls, Ala.	11.1
Centralia & Central City	Fair Grounds, Ill.	Central City, Ill.	2			
Centralia & Chester	Coulterville, Ill.	Nashville, Ill.	17			
Central of New Jersey						
Navesink				Atlantic High., N. J.	Highland B'ch, N. J.	4
Chambersburg & Gettysburg	Conococheague J., Pa.	Wolf Hill, Pa.	10			
Charleston & Savannah	Ashley River, S. C.	Charleston, S. C.	1			
Charleston, Sumter & Northern	Near Sumter, S. C.	Bennettsville, S. C.	47			
Charlestown Belt	Charlestown, W. Va.	N. & W. R. R.	1			
Chattanooga Southern	end of track	Gadsden, Ala.	44.8			
Chesapeake & Ohio	Eagle Rock, Va.	Newcastle, Va.	26			
"	Near Clifton F., Va.	Warm Springs, Va.	25			
Chicago, Burlington & Quincy						
Burlington & Missouri River	Rockford, S. Dak.	Deadwood, S. Dak.	23.5			
" " "	Minnekahta, S. Dak.	Hot Springs, S. Dak.	12.8			
" " "	Merino, Wyo.	Gillette, Wyo.	47.9			
" " "	Beverley, Neb.	West	19			
Chicago & Eastern Illinois	Tuscola, Ill.	Shelbyville, Ill.	42			
Chicago, Evansville & Chattan'ga				Evansville, Ind.	Bowling Green, Ky.	100
Chicago, Ft. Mad. & Des Moines	Collett, Ia.	Libertyville, Ia.	5	Libertyville	Ottumwa, Ia.	21
Chicago & Grand Trunk				Harvey, Mich.	Thornton J., Mich.	3
Chicago, Indianapolis & Chatt. So.				Indianapolis	Rockport, Ind.	172
Chicago, Madison & Portage				Madison, Wis.	Portage, Wis.	40
Chicago & New Orleans				Altamont, Ill.	Metropolis, Ill.	147
Chicago & Northwestern	Crystal Falls, Mich.	Amasa, Mich.	13.4			
" "	Traverse C., Mich.	Spencer Creek, Mich.	25	end of track	Charlevoix, Mich.	42
Chicago & West Michigan	Charlevoix	Petoskey, Mich.	15			
" " "	Williamsburg, Mich.	Elk Rapids, Mich.	9			
Choctaw Coal & Railway Co.	between El Reno	Oklahoma, Okla.	5.7	end of track	Oklahoma C., Okla.	12
Cincinnati Circular				Red Bank, Cin.	West End	10
Clev., Cin., Chicago & St. Louis				Harrison, O.	Richmond, Ind.	30
Clarendon, Oklahoma & S. Loui				Clarendon, Tex.	Oklahoma, I. T.	250
Cleveland Belt				Cleveland, O.	W. Cleveland	6
Cleveland, Wooster & Musking'm	Wooster, O.	Lodi, O.	20			
Colorado & Northeastern				Pueblo, Colo.	Kit Carson, Colo.	120
Colorado Southern				Texas Creek, Colo.	Westcliffe, Colo.	26
Columbia, Newberry & Laurens	Gany's Gare, S. C.	Dover, S. C.	13.5			
Columbia River & Astoria				Goble, Wash.	Astoria, Ore.	60
Concord & Montreal	Jeff. Highl'ds, N. H.	Randolph, N. H.	3	end of track	Berlin Falls, N. Y.	17
" "	North Weare, N. H.	Henniker, N. H.	6.5	Goffstown	New Boston, N. H.	6
Coos Bay, Roseburg & Eastern	Marshfield, Or.	Dunham's, Or.	10	Dunham's	Roseburg, Ore.	87
Cornwallis Valley				Centreville, N. S.	Middleton, N. S.	28
Covington & Louisville				Covington, Ky.	Louisville, Ky.	92
Croton Valley				Croton Point, N. Y.	Near Ridgefield, Ct.	28
Dakota, Wyoming & Mo. River				Rapid City, S. Dak.	Missouri River	100
Danville & East Tennessee				Bristol, Tenn.	Damascus, Va.	26
" "				Damascus	Danville, Va.	129
Delaware, Lackawanna & Wes'n:						
Lackawanna & Montrose	Alford, Pa.	Montrose, Pa.	10.5			
Delaware River & Lancaster				Falls of French C'k.	Lancaster, Pa.	30
Del., Susquehanna & Schuylkill	Drifton, Pa.	Gowen, Pa.	33			
" " "		On branches	5			
Denver, Lakewood & Golden	Denver, Colo.	Golden, Colo.	11.5	Golden	Georgetown, Colo.	35
Denver & Rio Grande:						
Rio Grande & Gunnison	Wagon Wheel Gap.	Creede, Colo.	9.6			
Duluth, Mesabi & Northern				St. Louis River	Iron M'ntain, Minn.	46
Duluth Pierre & Black Hills				Aberdeen, S. Dak.	Pierre, S. Dak.	228
Duluth & Winnipeg	Grand Rapids, Mich.	West	17			
Duluth Transfer	West Duluth, Minn.	Stowell, Minn.	2	Duluth, Minn.	Fon du Lac, Minn.	20
Dutchess County	Hopewell Jun., N. Y.	Poughkeepsie, N. Y.	12			
East Louisiana	Hand Junct., La.	End of track	6.5	End of track	Maudeville, La.	5
Easton & Northern					At Easton, Pa.	2
East Tenn. Virginia & Georgia:						
Johnson's Cerobina	New Johns'n C., Tenn.	Embreeville, Tenn.	11			
Elgin, Joliet & Eastern	Main line	Aurora, Ind.	1.3			
Ellensburg & Northeastern			158	Ellensburg, Wash.	Cooke City, Wash.	128
Emporium & Rich Valley	Emporium, Pa.	Countryline, Pa.	8			
Fidalgo City Lett Line	Burrays Bay, Wash.	Fidalgo City, Wash.	3			
Finesvile & Cloverdale				Finesville, Va.	Cloverdale, Va.	7
Findlay Belt				Findlay, O.	Shortsville, O.	6
Findlay, Ft. Wayne & Western	Glandorf, O.	Evansville, O.	13.4			24
" " "	Huntstown, O.	Toward Glover Hill	1	End of track	Glover Hill, O.	8
Flint & Pere Marquette				Non, Mich.	Detroit, Mich.	8
Florida, Georgia & Western	Tallahassee, Fla.	Lake Como, Fla.	11	Tallahassee, Fla.	Perry, Fla.	39

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