

MAINE STATE LEGISLATURE

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Public Documents of Maine:

BEING THE

ANNUAL REPORTS

OF THE VARIOUS

PUBLIC OFFICERS AND INSTITUTIONS

FOR THE YEAR

1876.

VOLUME II.

AUGUSTA:

SPRAGUE, OWEN & NASH, PRINTERS TO THE STATE.

1876.

REPORT

OF THE

RAILROAD COMMISSIONERS

OF THE

STATE OF MAINE,

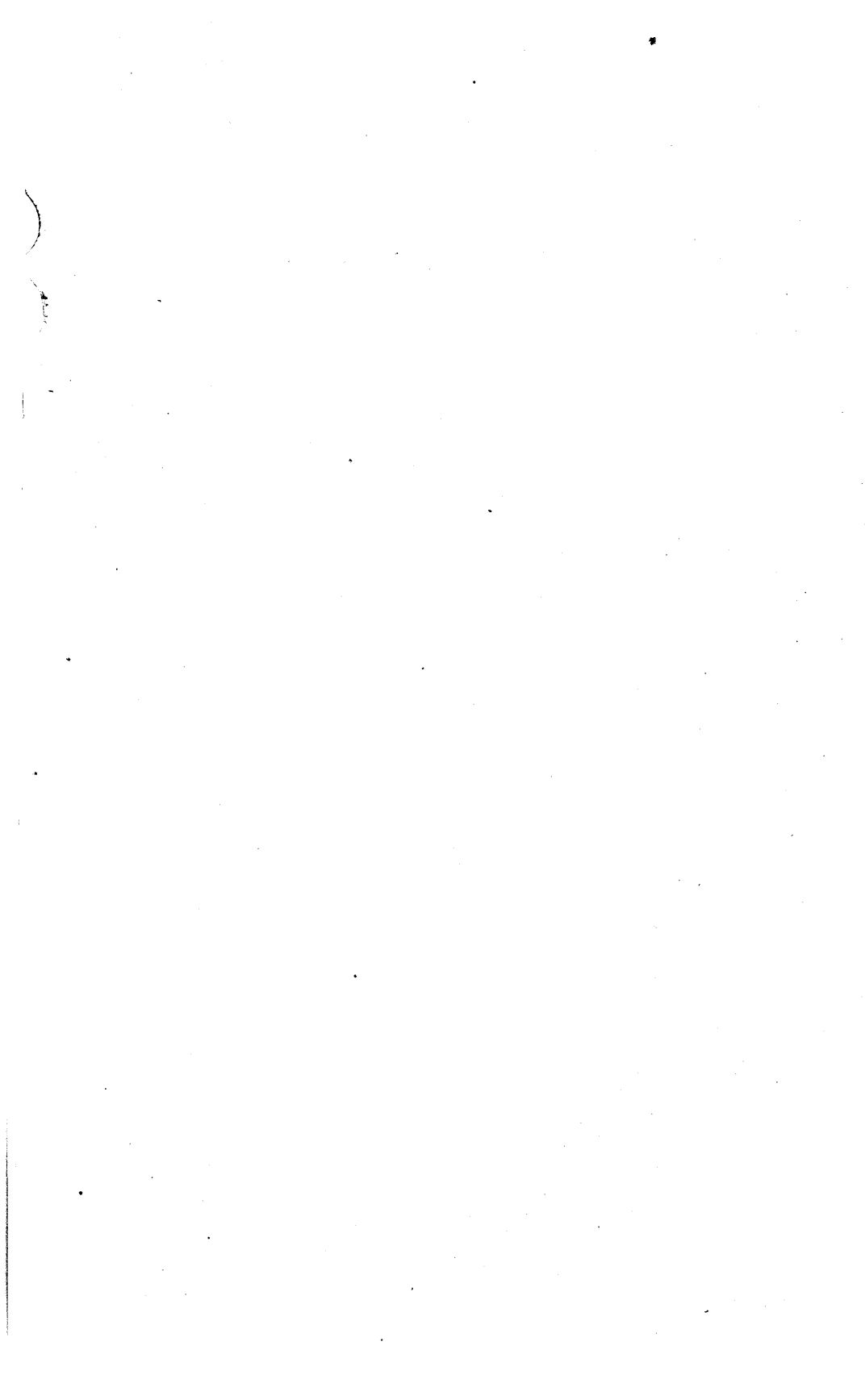
FOR THE YEAR

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AUGUSTA:

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REPORT.

To the Governor of Maine:

The Railroad Commissioners respectfully submit their Annual Report.

The powers of the Board of Railroad Commissioners are all given by statute, and are confined to a few matters arising in the practical workings of railroads, and their jurisdiction over these is limited. The principal duty conferred upon them by statute is to "carefully examine the tracks, rolling stock, bridges, viaducts and culverts of all railroads." This duty we have endeavored faithfully to perform in our two customary annual examinations of each road, but one of our Board has besides at other times inspected most of the roads in company with the superintendent or road-master.

The roads and rolling stock are generally in good condition, as will particularly appear under the head of the several roads, and the "serious accidents" which we are required to state have not been of so frequent occurrence as in years past. There has been no startling catastrophe. Our roads compare favorably in their exemption from casualties with the roads of other States. And it would seem from foreign reports of railroad accidents, that railroad disasters in England and on the Continent were quite as frequent as in this country, and of late more appalling in their destruction of human life.

In reference to statistical tables, the general reader will find in our report an agreeable freedom from them, and the railroad manager—does he ever read them?—will remember that no provision is made by our statute for the collecting of statistics beyond the answers to certain interrogatories, all of which we print in tabular form.

And in this connection we may properly add, we think, that the Board of Railroad Commissioners have no office, or clerk, furnished by the State, or salaries—if they had, they might of course

easily load their report to the water's edge with page upon page of dates and figures and statistics ; which, if they served no better purpose, would at least keep up the appearance and excuse of their office, though costing the State thousands of dollars, and thousands more to print and distribute.

When, however, our State system of railroads shall be more extended, and their mode of management more complicated, and the interests affected by them more involved, a railroad statistician may become necessary, but at present we doubt whether the good to be desired from long, dreary tables of figures, over and over again repeated, as applicable to different roads, as we notice in reports of some other States, would be commensurate to the cost. And we would not, therefore, advise the State to make any provision for them at present, but would rather suggest, if we may be allowed to go out of the record, whether the husky repetitions of routine and of facts, if not the same, similar and kindred, might not be eliminated from some other "Annual Reports," without much impairing their usefulness, and certainly at a very great saving in the cost of publishing them.*

RAILROADS IN MAINE.		Miles.	Whole length main line op.
1.	Androscoggin (see Maine Central).....	70.5	70.5
2.	Aroostook River.....	3	3
3.	Atlantic & St. Lawrence (see Grand Trunk) .	82	149.5
4.	Bangor & Piscataquis (see E. & N. A.).....	54.5	54.5
5.	Bath Branch (see Maine Central).....	9	9
6.	Belfast & Moosehead Lake (see Me. Cent.)..	33.33	33.33
7.	Boston & Maine.....	46.5	116
8.	Bucksport & Bangor (see E. & N. A.).....	18.8	18.8
9.	European & North American.....	114	205
10.	Grand Trunk.....		1388.5
11.	Houlton Branch (see N. B. & Can.).....	3	
12.	Knox & Lincoln.....	49	49

* In one State Report, 1870, before us, besides the report proper of the Railroad Commissioner, there are 257 pages of abstracts of reports of railroads and telegraph companies, tables of figures repeated, upon every road in the State. In another State, 1874, 233 pages of tabulated figures of railroad returns. In another State, 1875, 179 pages of the same. In another State, 1868, published by the railroad commissioners, separate from their very valuable report proper, 318 pages of railroad returns, column upon column of figures responsive to the same enquiries to different roads.

An expensive luxury to the State which indulges in them—interesting to the statistician—but of how much practical good to others there may be difference of opinion.

RAILROADS IN MAINE—CONCLUDED.		Whole length main line op.
	Miles.	
13. Lewiston & Auburn (see Grand Trunk)....	5.5	5.5
14. Maine Central.....	127.5	127.5
15. New Brunswick (see Aroostook River)....		112
16. New Brunswick & Canada (see Houlton Br.)		122
17. Newport & Dexter (see Maine Central)....	14	14
18. Portland & Kennebec do. do.	63	63
19. Portland & Ogdensburg.....	51	200
20. Portland & Oxford Central.....	27.5	27.5
21. Portland & Rochester.....	49.5	52
22. Portland, Saco & Portsmouth.....	52	52
23. Portland (Horse).....	6.75	6.75
24. Portsmouth, Great Falls & Conway.....	4.25	72
25. Somerset	25	25
26. Somerset & Kennebec.....	37.75	37.75
27. St. Croix & Penobscot.....	22	22
28. Whitneyville & Machiasport.....	7.5	7.5
Total number of miles.....	986.88	3051.13

It being but about one mile of railroad in the State to each 33 square miles of territory; to each \$231,000 of property, and to every 644 of population.

Houlton Branch.

The "Houlton Branch" of the New Brunswick & Canada Railroad extends from Debec station on the N. B. & C. road, in New Brunswick, to Houlton in Maine. The Branch is 8 miles, 3 of it being in the State. There are no bridges—and but one or two culverts upon the portion in Maine—the iron is light but good, and is not much worn. The ties are large, sound, and thickly placed in track, which compensates for rather a deficiency of ballast—the road-bed is in good condition. The freight and depot buildings at Houlton are convenient and commodious, and we judge the business at this station is relatively large.

The Branch is under the same control as the N. B. & C. road, and the offices of the company are at St. Stephens. The N. B. & C. road seems to us, as we pass over it on our way to examine the St. Croix & Penobscot road, as well as this "Branch," to be very well and carefully managed. Its trains are run with regularity, and no accident of a serious nature to person or property has happened upon it.

The axle-box of Mr. Osburn's, mentioned in our last year's report, has since been patented in the United States and Canada. The improvement consists of a cushion made of soft felt, which is kept pressed against the journal by two spiral springs. This cushion fits into a drawer in which the oil is placed, and the drawer pushed into the axle-box. Two pieces of felt connected with the cushion pass through the oil, by means of which the cushion is kept constantly saturated so long as a drop of oil remains in the drawer.

The present cover is held in place by a rubber spring, and when shut (with a catch) holds the drawer in place. The box is simple in its construction; there is no part to get out of order, no loose cover or bolt to get lost by careless packers; indeed, with this box in use the services of an oiler or packer are hardly required. All that may be necessary for precaution is, that the cover should be raised and the box looked at occasionally, and if more oil is required some poured in.

The saving in oil has proved as great as the inventor expected; a pint of oil will last, it is stated, at least 2000 miles; so long as any oil remains in the drawer the axle will be lubricated. The quantity of oil used by railways in lubricating the axles of cars is very great, and yet but little of it actually performs the service intended, it is so largely wasted. In this invention every drop goes on to the cushion, none is wasted.

To form some idea of the saving in oil effected by this box, one has only to examine the sleepers just outside the rails in any station, and he will find them saturated with black oil. Should he think this is caused by the dropping of oil from the boxes for several years, he has only to wait until a new sleeper is put in, and in three or four days it will be almost as black as the others; then let the inquirer look round the yard and see the quantity of wool and waste, black with oil and full of grit and dirt, that has been pulled out of the boxes by the packer.

On the contrary, if a train of cars be examined on which some of these patent axle boxes are used, it will be seen that the face of the wheel is as clean and free from oil as when it left the shop, while the other wheels are encrusted half an inch thick with oil and dirt.

The saving in oil packing, brasses, and wear of axles is so great by the use of this box that Mr. Osburn thinks no company having once used it, would willingly return to the wasteful method at present generally practised.

Mr. Osburn has an aptitude for the place he so well fills.

Hon. F. A. Pike, of Calais, is President of the N. B. & C. road. Henry Osburn, Esq. of St. Stephens is Manager. F. N. Todd, James Murchie, C. F. Todd, J. Chipman and H. Osburn, of St. Stephens, Hon. B. R. Stephenson of St. Andrews, and Hon. J. C. Madigan, Houlton, Directors.

St. Croix and Penobscot Railroad.

The St. Croix and Penobscot Railroad extends from Calais to Princeton; its main track is 22 miles. Its offices are at Calais. It was commenced in 1850 and finished in 1856. The road is a good deal worn, but is kept in such repair as to be safe for the kind of business it does. Its business is largely the transportation of sawed lumber, from the mills to tide water. Its passenger traffic is light. It runs a mixed train once a day to Princeton and back for the accommodation of passengers; its other trains to the mills for lumber and other freight. Its trains are all run slow and carefully.

The bridge at Sprague's Falls has been strengthened and repaired during the season at a cost of about \$1,000—a much needed and well done job. There has not been much new work done upon the road the past year, though it has been very fairly kept up; but it will need soon, largely, new iron, and very considerable renewals of material in bridges and ties, and track, to enable it to continue to perform safely and well the service now required of it. The idea of extending the road to Grand Lake stream, 12 miles, to secure the business of the tannery there, and with the ultimate view of a connection with the E. & N. A. at some point beyond, has not been given up. Mr. Sawyer is enthusiastic in favor of the project of extension, and anticipates a great enlargement thereby of the business of his road—to which he is devoting his best energies, and whose interests he is certainly carefully watching, and we should think ably managing. But the directors must wait the dawning of better times and the assurance of greater activity in business, before they will feel it wise, or the local public will demand of them, the hazard of the expenditure for such extension. It may come, however, with the growth of the country and the renewal of prosperity.

The road cost for construction about.....	\$569,000
Its earnings the past year were.....	55,112.38
Cost of operating (which is about 63 per cent.)...	35,369.16
Its funded debt is.....	217,700

Its most excellent Treasurer, Samuel Black, Esq., makes the praiseworthy return, that no person "was injured in life or limb" during the year, upon the road.

George M. Porter, Esq., of St. Stephens, is President. W. W. Sawyer, Esq., of Calais, Superintendent. G. M. Porter, E. A. Barnard, H. N. Hill, W. W. Sawyer and H. F. Eaton, Directors.

The Whitneyville and Machiasport Railroad Corporation.

This is not a passenger road and we have not visited it, but have received a report from the Treasurer under act of 1874, chap. 214. It is $7\frac{3}{4}$ miles long, was built in 1842-43, and cost \$100,000. The object of its construction was to carry sawed lumber from the mills at Whitneyville to Machiasport for shipment. It runs no passenger cars, but persons wishing to ride upon it take seats on the lumber, and ride free of charge and at their own risk. Its rate of speed is about 8 miles an hour. It has 2 engines and 46 single cars, and earned by the transportation of lumber and a few goods, \$6,600; which sum it expended in repairs, labor, &c., upon its track and equipment.

The road was built by the proprietors of the mills, and it was incorporated for the reason that it crosses several public highways.

Cornelius Sullivan, Esq., is Treasurer.

Consolidated European and North American Railway, Bangor and Piscataquis Railroad, and Bucksport and Bangor Railroad.

The Consolidated E. & N. A. Railway embraces the European & North American Railway in Maine, extending from Bangor to the State line, 114 miles, and the "Western extension" in New Brunswick, extending from Fairville Station, near St. John, to Vanceboro', 88 miles. From the terminus at Fairville Station, passengers and freight reach the city via the Carlton branch of 3 miles, and ferry across the river of $\frac{1}{2}$ mile. The contract of consolidation was December 1, 1872.

The consolidated road operates the Bangor & Piscataquis road, extending from Oldtown to Abbot—54 8-10 miles—under contract of lease, but which is practically a purchase; and the Bucksport & Bangor road, which extends from Bucksport to Bangor—18 8-10 miles—under lease for five years from December 12, 1874, being 275 miles in all. The Consolidated E. & N. A. Railway operates, therefore, 275 miles of road, besides the Carlton branch and lateral

tracks to mills, wharves, &c. It connects with the Intercolonial at St. John, and with the Maine Central at Bangor.

The E. & N. A. Railway is in very fair and safe condition; new rails have been put down between Bangor and Oldtown, with the exception of a few rods at Oldtown. New rails are much needed between Oldtown and Milford—say one mile—and there are some defective rails toward Vanceboro'. A little new iron, the equivalent of half a dozen miles, would make the track very perfect in this respect. Very little other new material will be required the coming year, except to repair ordinary wear and decay. When the company shall be able, it will do well, we think, to take up the iron rails between Bangor and Milford and put down steel in their stead; there are so many and so heavy trains over this portion of the road. The iron thus liberated will be serviceable elsewhere. The rolling stock is in fair condition and adequate, we are told, to the present business of the road, except that some thirty box cars more are needed.

The Bangor and Piscataquis branch has been well kept up and is in a good state of repair. It is very well ditched and ballasted, its bridges stand well; but we should advise arches another year upon the long span of the Black Island bridge. Some of its culverts may require attention soon, and new ties are wanted in places. It has been well cared for, but a little new material will soon, if not at once, be required.

We are glad to notice in the new time table of the Consolidated E. & N. A. Railway, that the time of both the passenger and freight trains has been lengthened. For both, we think, under the circumstances, have been run too fast. It is not a road demanding by its connections extraordinary speed, nor is it a road in such perfect condition as to bear, safely to its freight and passengers or without very wearing jar and friction, the speed it has sometimes if not regularly made. The difference in the strain upon a road between, say 20 and 25, or 22 and 30 miles an hour for passenger trains, and 10 and 15, 12 and 18 for freight, is very great—much greater than conductors or engine drivers are liable, when running, to calculate. Mr. B. H. Latrobe, C. E., says, "trains with ordinary freight, especially if carrying coal, ore, stone, lumber or other heavy articles, should not average more than eight miles per hour, nor exceed twelve miles per hour under any circumstances." Some

kinds of freight may require greater speed, and higher rates may compensate for the greater wear to the road.

Nor does the good sense of the public, we believe, understanding as it must the hazard and extraordinary wear to the road, exact a speed so much greater than the road can afford to make. And when a road runs faster to accommodate the exceptional clamor of individuals, it surrenders its own judgment of what is safe, for the exercise of which every life entrusted to its care has a right to hold it responsible—and of what is proper, in the light of its own better knowledge and of its own interest, the exercise of which no freighter has a right to complain of—to an unreasoning ignorance or irresponsibility.

Railroad engineers estimate the wear and tear of the roadway and equipment to increase nearly as the square of the speed. By this rule, the cost of a passenger train running 20 miles an hour would be—

$20 \times 20 = 400.$	Of freight train— $10 \times 10 = 100.$
$22 \times 22 = 484.$	$12 \times 12 = 144.$
$25 \times 25 = 625.$	$15 \times 15 = 225.$
$30 \times 30 = 900.$	$18 \times 18 = 324.$

A difference enough, if continued for a series of years and if compounded as if at interest, to make or purchase an entire road.

Prof. Vose of Bowdoin College, in his excellent "Manual for Railroad Engineers," says, "Express trains are a source of vast expense, directly or indirectly, which can never be repaid by any practicable tariff to be levied upon them. In 1854, a convention of American Railroad Managers recommended the adoption of a higher rate of fare upon express passenger trains, corresponding in some degree to the increased cost of such trains. The cost of running trains has been stated to increase nearly as the square of the speed. The wear and tear of engines, cars and track certainly increases in a rapid ratio with the velocity. The running time may be reduced with much more economy by lessening the number of stops, than by an actual higher velocity while running. A train to run 100 miles in four hours, making no stops, would run only 25 miles an hour; to make ten stops of six minutes each, the speed would have to be $33\frac{1}{3}$ miles an hour; and to make twenty stops of six minutes and accomplish the 100 miles in four hours, would require a speed while running of 50 miles an hour."

And the effect of high rates of speed on freight trains is the

same as on passenger trains, with this difference, that relatively it may be aggravated in the damage to roadway and machinery by the greater weight of the engines and train. And Mr. McCallum, in a report to the stockholders of the New York & Erie Railroad, quoted by Mr. Vose, well says: "In estimating the effect of high rates of speed in the cost of operating a road, it is not sufficient to count only the expense involved by the expenditure of the greater power required, and the additional wear and tear of the roadway and machinery, as these by no means unimportant items may be considered as such, when compared with the uncertain contingencies growing out of it," and the fearful risk of accidents it so greatly increases.

The funded indebtedness of the Consolidated E. & N. A. Railway is reported as follows:

1. An issue of \$280,000 of 6 per cent. twenty year currency bonds, dated August 1, 1863, and payable August 1, 1883. Of these, \$261,000 have been called in, cancelled and returned to the city treasurer of Bangor as per his receipts, leaving \$19,000 still outstanding, on which the coupons have been regularly paid up to and including August 1, 1875. Coupons payable at the office of the company in Bangor. Bonds \$1,000 each.

2. An issue by the city of Bangor to the European and North American Railway of \$1,000,000 twenty-five year 6 per cent. currency bonds, dated January 1, 1869, and payable January 1, 1894. Coupons payable in Boston, January 1 and July 1, and have been paid by the railway company to and including January 1, 1875. These bonds, \$1000 each, were all sold, and the whole issue is outstanding. They are secure by a first mortgage of road from Bangor to Winn, fifty-six miles.

3. An issue by the railway company of \$2,000,000 thirty year 6 per cent. gold bonds (principal and interest), dated March 1, 1869, and payable March 1, 1899. Coupons payable in New York, March 1 and September 1, and have been paid to and including March 1, 1875. Bonds \$1000 each, secured by a first mortgage on the lands granted to the company by the State of Maine, a first mortgage on railway from Winn to the St. Croix river—about 58 miles—and by a second mortgage on the railway from Bangor to Winn—about 56 miles. Of these bonds \$1,986,000 have been disposed of, leaving \$14,000 unsold but pledged at the Bangor Savings Bank as collateral security for loans.

4. An issue by the New Brunswick Railway Company of £411,000 of thirty year 6 per cent. gold bonds (principal and interest), dated July 1, 1867, and payable July 1, 1897. Coupons payable January 1 and July 1, and have been paid on all bonds sold, to and including July 1, 1875. Total sold and outstanding, £361,600, or about \$1,760,000; leaving unsold £49,400, or \$240,000, which are pledged as security for loans in London. Bonds £200 each. They are secured by a first mortgage on the entire line of road in New Brunswick—about 88 miles.

5. On the 5th of December, 1872, after consolidating with the New Brunswick company, an issue of \$6,000,000 of bonds was authorized for the purpose named in article 9 of the consolidation agreement. Of this issue \$5,000,000 were to be set apart and used only for the redemption and payment of the \$5,000,000 of first mortgage bonds upon the consolidated railway, viz: \$3,000,000 in Maine and \$2,000,000 in New Brunswick. The other \$1,000,000 to be used to pay debts, purchase rolling stock, &c. Under this authority \$1,500,000 of these consolidated bonds were printed, and \$1,000,000 only approved and signed by the trustees and duly prepared for use. These were 6 per cent. bonds, forty years to run, principal and interest in gold, dated May 1, 1873, payable May 1, 1913. Coupons May 1 and November 1, payable in New York. Secured by a mortgage upon the entire line of railway from Bangor to St John, N. B., and also a second mortgage upon the lands granted by the State of Maine to the European and North American Railway Company. Of these bonds, \$6,000 only have been sold. The balance, \$994,000, are pledged as collateral security for loans of money to the company.

THE BANGOR AND PISCATAQUIS BRANCH.

1. An issue by the city of Bangor to the company of \$600,000 thirty-year 6 per cent. currency bonds, dated April 1, 1869, and payable April 1, 1899. Coupons payable in Boston, April 1 and October 1, and paid to and including April 1, 1875. Bonds \$500 and \$1000 each. Secured by a first mortgage on the entire line of railway—55 miles.

2. An issue by the city of Bangor to the company of \$122,000 7 per cent. currency bonds, dated October 1, 1871, and payable April 1, 1899. Coupons payable in Boston, April 1 and October 1, and paid to and including April 1, 1875. Bonds \$500 and \$1000 each. Secured by first mortgage as above.

3. An issue by the city of Bangor to the company of \$92,000 7 per cent. currency bonds, dated December 1, 1874, and payable April 1, 1899. Coupons payable in Boston, April 1 and October 1, and paid to and including April 1, 1875. Secured same as the above. All the foregoing have been sold and are outstanding. Bonds \$1000 each.

4. An issue by the railway company of \$200,000 twenty-eight year 7 per cent. gold bonds (principal and interest), dated February 1, 1871, and payable February 1, 1899; coupons February 1 and August 1. None of these bonds sold, but all pledged at the Bangor Savings Bank as collateral security for a loan of \$100,000. Interest has been paid on this loan to September 23, 1875.

The earnings of the Con. E. & N. A. Railway and the B. & P. R. R., were, for the year ending Sept. 30, 1875.....	\$676,051	81
Operating expenses.....	350,989	58
The cost of Con. E. & N. A. road.....	10,405,403	10
Cost of the B. & P.....	1,213,954	55
Cost of equipment of the Con. E. & N. A. road...	669,116	78
Cost of the B. & P.....	110,200	07

The Consolidated E. & N. A. Railway failed to pay the coupons upon the Bangor loan, due July 1, 1875, and upon the land grant bonds, so called, due September 1, 1875, and its paper went to protest. In consequence of its failure, its funds in the hands of agents were trusteeed and its property attached. It thus became necessary, if the road was to continue to be run, that this floating debt which was thus hovering over it, like a bird of prey, should be driven off for the present beyond the power of annoyance; for the road could not be operated, if its earnings were thus liable every day to be pounced upon and wrested from it.

It was, therefore, brought about after consultation between the corporation and the funded and floating debt creditors, that the surviving trustee, B. E. Smith, Esq., under the consolidated bond above alluded to, should take possession of the road and run it, through his appointees, in the interest of the creditors of the road according to the priority of their respective claims.

And so the road is now operated under said trustee, and may so continue so long as it shall be run to the satisfaction of the "Land grants" and "Western extension bonds," and the policy and economy of its management shall commend itself to their approval and inspire assurance of a right appropriation of its earnings.

The original project of the E. & N. A. Railway contemplated a great enterprise—it looked to Governmental aid in its construction, which it has to some degree received. It may take a longer time than was anticipated, to carry out a project embracing Inter-colonial and Inter-national relations in the grandness of its idea, and more money than can at present be commanded for it, to complete its construction as intended by its public-spirited, if enthusiastic projectors. But time will yet, we trust, accomplish it all, and the failure of the European road, so much to be regretted for the ruin it has brought upon the men who staked their private fortunes upon its success—and lost—will only delay, we hope, and not stop the final, perhaps quite early, construction of the tributary roads necessary to complement the E. & N. A. road, already made, and give completion to a system of railways of which the European road is and was only intended from the beginning as a part.

The Bangor and Piscataquis road must be extended to Moosehead Lake, and the *Megantic road* must be made, to give over the B. & P. and E. & N. A. roads a direct, and the shortest connection between the Canadas and the Maritime Provinces, and between Eastern Maine and the West—and an Aroostook road must be made, to give access to that fine portion of our State, and an outlet to market from it.

The Megantic company is organized, and held a meeting in the spring preparatory to a survey and location of the route during the season, but reconnoissances were suspended on account of the failure of the European road.

The Bangor and Piscataquis road was intending the past fall to make another approach toward the lake, of 8 miles of the 22 yet remaining to reach this terminal point of the Megantic.

An Aroostook road, Bangor and the State can hardly afford to let remain much longer unbuilt. The business of the county of Aroostook is being diverted to New Brunswick by railroads built by Provincial subsidy into the State from the St. John river. And State pride and State interests, and individual enterprise, cannot long tolerate this unnatural diversion. This Provincial policy will be met, and firmly and soon, we hope, by the construction of a better road on a shorter route to better markets, from some point on the line of the European road into the valley of the Aroostook—to thus restore the business and trade of the State to its natural and traditional channels.

These projects consummated—the European road thus complemented by the construction of these branches and extensions—the vision of the late J. A. Poor, who was the first, we believe, and certainly among the most ardent of the projectors of the European road, will have become prophesy fulfilled, and Eastern Maine will receive by reason of this system of railways, we may hope, a development and the State at large an increase in wealth and population and values to justify the aid it so munificently extended by its land grants toward the enterprise.

It may not be out of place to remark, that there is almost an urgent necessity for the guage of the Con. E. & N. A. road to be narrowed to conform to the guage of the Maine Central and Inter-Colonial roads, and that a bridge be built across the St. John river at the city of St. Johns, to give it direct connection with the Inter-Colonial, going east to Shediac and Halifax. The guage the road may be able to narrow—the bridge the Government must build. And we can hardly conceive of any great work of public improvement in the Province, whether upon river or highway, more deserving of popular favor or better entitled to Governmental aid.

G. K. Jewett, Arad Thompson, M. S. Drummond, Elias Merrill, and N. Woods, of Bangor, P. W. Davis, Jr., of Katahdin Iron Works, J. W. Emery, Esq., of Cambridge, Geo. E. B. Jackson, Esq., of Portland, and E. R. Burpee, James R. Ruel, Robert Robinson, E. N. Skimmer and E. S. Jewett of St. John, are Directors.

G. K. Jewett, Esq. is President; Hon. N. Woods is Treasurer; F. W. Cram is Superintendent; H. D. McLeod of St. John, is Assistant Superintendent.

The Bucksport and Bangor Railroad.

The Bucksport and Bangor Railroad is a new road opened last year, extending from Bucksport to Bangor to a connection with the Con. E. & N. A. Railway, 18 8-10 miles. The road is not yet entirely finished, but its track is in good condition and trains have been running over it since December 21, 1874. This fall some \$5,000 has been expended in work upon it, which has done much toward its completion. The iron is new and good, 56 lbs. per yard, and is laid with fish joints. The fences were not well put up, and already in places are tumbling down; something has been done toward ditching the road, but much more is necessary, and a good deal of ballast has been put on late in the season, but more still is needed. The soil is such upon the route of the road that deep

ditching and a thick layer of gravel are particularly necessary to the preservation of the road, and to its easy running. The road will be completed the coming season.

The cost of the road, exclusive of interest and discounts, and the construction of the wharf at Bucksport, has been, so far, \$590,580. The road is leased to the Con. E. & N. A. Railway for five years from December 12, 1874, at a rent of 40 per cent. of earnings; and the earnings the past year were above \$20,000; thus giving \$8,000 rent upon the contract. It is expected the earnings will be much larger another year, for the reason that it is anticipated the winter season will ordinarily be the most remunerative to the road, and last winter the harbor at Bucksport froze over and so remained for a long time—an occurrence happening only at long intervals of years—and thus the ingress and egress of freight, and passengers as well, by water, was prevented. The present month of December, the road has done a very large business. The funded debt of the road is \$379,000 sold, of the issue of \$400,000 authorized. The floating debt is \$80,000, exclusive of the liability for depot grounds at Bucksport. This floating debt will be reduced about one half if the liability of subscribers to stock is sustained by the court. \$354,000 of the bonds sold, have funded their coupons for two and a half years from October 1, 1874, at the expiration of which time the Directors hope that the road may earn enough to pay its floating debt and resume the regular payment of interest upon its funded indebtedness.

The Directors are S. P. Hinks, Fred Spofford, J. B. Bradley, Alonzo Colby, S. P. Hall, E. B. Gardiner and Hugh Ross.

S. P. Hinks, Esq., is President. Parker Spofford is Treasurer and Engineer.

The Portland and Oxford Central Railroad.

We have not examined this road this year, for the reason that it has not been operated. It would have been easy for the mortgagees a few years ago to have sold their road when it would have been repaired and run, to the convenience and advantage of the towns through which it passes. But now no one, we fear, may soon be found willing to undertake its reconstruction at any cost of purchase which would be agreed to by the owners. This is to be regretted, and the communities on the line of its route which depended upon it for business facilities, and which contributed largely toward its original construction, complain of the manage-

ment which has thus allowed it to go to ruin—that it cannot be used—and they have heretofore asked, without practical avail, the intervention of legislative enactment in their behalf.

Atlantic and St. Lawrence Division of the Grand Trunk.

Portland, Me., to Island Pond, Vt., 149½ miles—82 miles in Maine.

Directors—John B. Brown, Portland; Francis K. Swan, Portland; Franklin R. Barrett, Portland; Chas. J. Bridges, Montreal; Charles E. Barrett, Portland; Samuel E. Spring, Portland; H. J. Libby, Portland; Joseph Hickson, Montreal, Ca.; Sir Alex. T. Galt, Montreal, Ca. John B. Brown, President; F. R. Barrett, Clerk; Charles E. Barrett, Treasurer.

Within the last six years this railroad has shown remarkable improvement, and come up from a very dilapidated condition in 1869, to take first rank among the railroads of the State in 1875.

In a report made in 1868, the Railroad Commissioners say, “that the road is generally, within this State, in a worn out and bad condition; so as, in our opinion, to be unsafe for travellers over it. Many rails are broken at the ends, bent and badly laminated. There are many short pieces of rail not properly spiked, and some not secured at the joints by chairs or fish plates. There are many defective sleepers, and it requires ballasting all the way from Danville Junction to Portland.” And they required that the rate of speed of the passenger trains should be reduced to fifteen miles an hour until specified repairs were made.

Now, of the eighty-two miles of this railroad in Maine, forty-seven are laid with steel rails, the balance with good iron, and all upon good sized, sound ties, nicely surfaced and well packed in a heavy body of excellent ballast. The bridges are generally of iron, with an ample margin of material in them beyond the ordinary requirement.

Three very substantial arch culverts have been built the past year, where heavy banks were washed out and replaced by trestles. Now solid banks are there, with ample water-ways through them. These culverts are each about one hundred and twenty feet long, and noteworthy because they prepared the way for completing the embankment over them, and for the uncommon excellence of the workmanship and material in their construction.

Besides the excellent general maintenance of way, and renewals of various sort, (as instance the following items during the year—17¼ miles of steel rails, 8 miles of ballast on main track, and 5½ miles second lift of Lewiston and Auburn Branch; 59,150 new ties, and a new iron bridge 125 feet long to replace the Royal River wooden bridge at Yarmouth)—there have been, within the past two years, extraordinary expenditures from which this company may reasonably anticipate compensation in increased facilities for the transaction of its immense business. A very important one is the new Elevator at Portland, which has a capacity for 200,000 bushels of grain, and takes it from the cars by means of steam scrapers, three cars being unloaded at once; and the grain, corn, oats, peas, &c., carried to the bins by means of three elevators, one elevator for each car; and from the bins arrangements are made to spout into the ocean steamers, in bulk, or by bags, and also in the same manner into teams for local consumption, or into coasting vessels; arrangements are also made for taking grain out of coasting vessels.

The elevator is furnished with every improved appliance, such as Sturdevant's Patent Blowers, Weigh Scales, and the most approved machinery.

This company now owns and has rebuilt the Galt wharf, and dredged the basins on each side so that coasting vessels and ocean steamers can approach the elevator.

This company has at Portland accommodation for ocean-going vessels, to the extent of 2,400 feet run of wharves, or nearly half a mile; and in addition they have wharf accommodation for coasting vessels, to the extent of 1,000 feet, and in both cases freight shed accommodation connected therewith.

This company has also enlarged and rebuilt the Atlantic Galt wharf at Portland, for ocean steamers' accommodation, and these works are in thorough repair, having been rebuilt since the fire of 1873.

A considerable amount of dredging has also been done, so that now ocean steamers have a depth of 24 feet at low water.

The work of rebuilding the wharves and the elevator has entailed a sum of \$300,000, from January, 1873, up to the end of this year.

The Lewiston and Auburn Branch.

Lewiston to the Grand Trunk, $5\frac{1}{2}$ miles. This road is most thoroughly built and in excellent condition throughout. It has received the past season the finishing lift of ballast, and its surfacing and alignment have been nicely adjusted; its masonry is first-class, and its bridges of the best character. It is now operated as a part of the Grand Trunk, to which company it has been leased, and of which it is practically a part.

Boston and Maine Railroad.

Portland, Me., to Boston, Mass., 116 miles—44 miles in Maine of main track.

Directors—Nathaniel G. White, Lawrence, Mass.; Amos Paul, So. Newmarket, N. H.; William S. Stevens, Dover, N. H.; Samuel E. Spring, Portland, Me.; Nathaniel W. Farwell, Lewiston, Me.; George C. Lord, Newton, Mass.; Nathaniel J. Bradlee, Boston, Mass.; Jas. R. Nichols, Haverhill, Mass.; John Felt Osgood, Boston, Mass. Nathaniel G. White, President; Amos Blanchard, Treasurer; Jas. T. Furber, Lawrence, Mass., General Superintendent; Chancey P. Judd, Clerk; A. R. Turner, Auditor.

This admirably constructed and equipped railroad has, during the past year, fully maintained its well-earned reputation for constant, undeviating regularity and safety of operation.

The financial affairs of the road are in most excellent condition. The gross receipts for twelve months ending September 30, 1875, were \$2,388,740.18. Operating expenses, exclusive of taxes, \$1,422,721.57; taxes paid in all, \$99,840.20; total, \$1,522,561.77. Leaving as net earnings for the year, \$866,178.41. Interest and coupons paid during the year, \$258,199.93. Leaving a balance of \$607,978.48. There has been a decrease in the net income of the present as compared with the previous year, of \$19,375.95, which is accounted for by the depression in all kinds of business. The floating debt of the corporation has been reduced during the year, \$527,849.69.

The tables show a net gain the past year of 156,994 passengers, and in freight a gain of 94,452 tons. The road bed and track has been kept in good condition; $11\frac{3}{4}$ miles have been relaid with new iron, and $7\frac{1}{2}$ miles with steel rails during the year. A large amount of side track has been laid at various points on the road. Other improvements have been made of an extensive and permanent character.

Portland, Saco and Portsmouth Railroad.

Portland, Me., to Portsmouth, N. H., 52 miles. Operated by the Eastern Railroad Company of Massachusetts.

Directors of the P. S. & P. road—John Wooldredge, Boston, President; Nathaniel Hooper, S. Lothrop Thorndike, C. W. Free-land, Boston; Ichabod Goodwin, Portsmouth, N. H.; John B. Brown, Charles E. Barrett, Portland, Me.

This was originally constructed and is well maintained and operated as a first-class railroad; its track, equipment and buildings are in good order; it is provided, generally, with safety switches throughout the main track, and has all the essential appliances for comfort as well as safety to its trains. About thirty tons of steel and nine hundred tons of iron rails have been laid in its track the past season.

The long and substantial trestle bridge over the tracks in the Portland station yard, has been completed for the safe accommodation of the large highway travel between Cape Elizabeth and the city, formerly forced to cross at grade, to its own constant danger and annoying loss of time to the railroad operatives. This yard is now certainly one of the most convenient and valuable to be found anywhere.

Portsmouth, Great Falls and Conway Railroad.

Conway Junction in Berwick, Me., to North Conway, N. H., 71 miles.—In Maine, four and three-quarter miles. Operated by the Eastern Railroad Company of Massachusetts.

This railroad is in a fair condition, but the track should have more ballast, and some of the bridges and culverts need considerable repairs to render them perfectly safe for another season.

Portland and Rochester Railroad.

Portland, Me., to Rochester, N. H., 52 miles. There making close connection with the Nashua & Rochester, an extension of the Worcester & Nashua, by which a directly through connection with New York is made in 326 miles from Portland. Length of road in Maine, 49½ miles.

Directors, 1875-76—George P. Wescott, Portland; Frederick Robie, Gorham; John Lynch, H. J. Libby, Portland; W. G. Ray, New York City; Joseph S. Ricker, Deering; A. K. Shurtleff,

Geo. E. B. Jackson, Charles McCarthy, William R. Wood, Portland; E. G. Wallace, Rochester, N. H.

George P. Westcott, President; Frederick Robie, Vice President; William H. Conant, Treasurer and Clerk; James M. Lunt, Superintendent; J. W. Peters, General Ticket Agent.

The country through which this road has been built is generally quite favorable to the construction and the easy maintenance of a railroad.

The road, as a whole, was well constructed, and it is uncommonly free from liability to washings by freshets. The track is now very good, having come up during the past three years, like the Grand Trunk, from a low plight. The general superstructure has been maintained the past year in good working condition, and now with its well settled and substantial roadway, its good gradient and alignment, there appears every reason to expect, with a good degree of assurance, that the future movement of its passenger and freight trains will be as markedly regular and safe as they have been the past year.

Aroostook River Railroad.

This is the corporate name of the extension of the "New Brunswick Railroad" three miles into the State, from the boundary to the village of Fort Fairfield. The road was opened a few weeks ago, and we have not visited it.

The New Brunswick Railroad is a narrow guage road—its guage being $3\frac{1}{2}$ feet—extending from Fredericton up the St. John river upon the east side. The N. B. road is to operate the A. R. road.

The "New Brunswick & Canada Railroad," is another road extending from St. Andrews and St. Stephens to Woodstock, where a bridge is being constructed by the N. B. road across the St. John river, to make a connection with the N. B. & C. road, so that freight or passengers leaving Fort Fairfield can go by rail to St. John, St. Andrews, St. Stephens, or via McAdam and transhipment to Bangor.

It is proposed to extend the "Aroostook River Railroad" the coming year, to the village of Caribou, in the town of Lyndon. The road-bed is now being grubbed.

It is anticipated by the builders of the A. R. & N. B. roads, that deals will be largely manufactured upon the Aroostook and tributary streams, to be taken by rail to Fredericton for shipment. And we notice elsewhere, the proposition to put a steamer upon

the Aroostook river; another summer—the Aroostook valley is beginning to be appreciated. Its products have for years been very considerable, notwithstanding its remoteness from market. But it has capabilities in its forests and soil to be developed through the instrumentality of these new facilities of transportation, which will very greatly increase its productions.

These Provincial roads, tapping the State at Fort Fairfield and Houlton, will for a time have the advantage of large traffic, furnished from the State, and so far as they may tend to develop the resources of these border towns and valleys that trend toward the St. Johns, "outsiders" cannot well object. But by and by, when a railroad, starting from the vicinity of Danforth, it may be, shall run well up north through the first range of townships, the trade of this border country, like Rip Van Winkle's dog Snyder, will recognize its old master, and follow him back into the market places of the State and the Union.

Hon. Alexander Gibson of Fredericton, is President of the N. B. Railroad; E. R. Burpee, Engineer; Thos. Hoben, Superintendent. E. R. Burpee, Board of Directors.

Somerset Railroad.

From West Waterville to Anson, 25 miles.

Directors—Edward Rowe, Norridgewock; Nathan Weston, Madison; John Ayer, West Waterville; W. H. Brown, North Anson; William Atkinson, Embden; Nicholas Smith, Bingham; John Caurney, Carritunk; F. W. Hill, Exeter; Benjamin Flint, California; R. B. Dunn, Waterville; Samuel Bunker, North Anson.

The first surveys for this road were made in the year 1847, and from that time up to the present year, when the road has been completed to Anson, its construction has been the all-absorbing interest of its projectors and the people living along the line. After many discouragements and almost unprecedented effort, the track has reached its present terminus, and is in good order for traffic.

The road commences at its junction with the Maine Central, at West Waterville; thence passes through the villages of Norridgewock and Madison Bridge to a point on the south bank of the Seven-Mile brook in the town of Anson. There are two important bridges over the Kennebec river—one at Norridgewock, the

other at Madison—both of them good, reliable structures. The trestle approach at the north end of the Norridgewock bridge should be filled with earth as soon as practicable. The masonry along the line is generally good, the road-bed wide and well graveled, and upon the whole we believe it to be a good, safe road; creditable to the managers for the economical manner in which its construction has been accomplished.

Owing to a misunderstanding, the Commissioners' report of last year gave the cost of this road from West Waterville to Norridgewock as \$519,042.28. This was an error, as the above named sum covers the entire cost of the road, to the then terminus near Madison bridge, about seven miles above Norridgewock. The rolling stock consists of 2 engines, 1 passenger, 1 baggage and mail, and 11 freight cars, all in good condition.

The Treasurer's report of the construction, and operating expenses, and business of the road for the past year, will be found in the tabulated statements on another page.

John Ayer, of West Waterville, President; A. R. Small, West Waterville, Treasurer; Edmund Rowe, Norridgewock, Clerk.

Knox and Lincoln Railroad.

From Bath to Rockland—49 miles.

Directors—Oliver Moses, Esq., Edward Sewall, Bath; Henry Ingalls, Wiscasset, Edwin Flye, Newcastle, D. W. Chapman, Damariscotta, Joseph Clark, Waldoboro', Edmund Wilson, Thomaston, Francis Cobb, John T. Berry, Rockland.

Owing to the unusual amount of bridging upon this road, the Commissioners have made frequent and close examinations as to its condition, and have spared no effort to make these thorough and searching; and while we have found some structures (as in the case of other roads) needing re-building or repairing, we have not (with one exception) found any rot or weakness, which at the time of the examination impaired the safety of the road to such an extent as would justify the Commissioners in pronouncing it unsafe for the passage of trains.

Sometime in the month of September last, a report came to the Commissioners, that certain bridges upon this line were in an unsafe condition; and in consequence of this report, we felt it our duty to institute a special and ridged investigation. And while we found that the piles in some of the bridges were more or less

decayed upon the outer surface, we discovered nothing (with one exception, before named) which in our opinion would endanger the safety of the trains until the proper time for the usual repairs next spring.

The exception referred to, was a small pile bridge near Wiscasset, where some of the piles were found to be badly decayed, and these were promptly removed and trestles substituted in their places, before the examination of the whole line was completed. And we believe that the road is not simply safe, but in fair order for the service required of it; and the unusual exemption from delays and accidents sufficiently attests the careful and safe character of the management.

Several improvements have been made the past year; among which is the filling up with earth of one pile bridge, and the repairing of Dike and Nequasset bridges between Bath and Wiscasset. The long pile bridge east of Wiscasset, has also been repaired, new piles driven and otherwise strengthened. The pile bridge at Damariscotta Mills has been strengthened by the addition of new strands to the track-stringers, throughout its entire length, and we further required new cross-ties upon the stringers.

Several of the bridges will require extensive repairs next year, one of which, the pile portion of the Nichols river, should be filled with earth and stone, or new piles be driven. There are others of the same character, but of less extent, that will need the same general overhauling. The track and road-bed is in good condition, and as particular attention is given to good drainage and ditching, this supplies to a great extent the want of gravel.

The abstract from the report of the Treasurer will exhibit the business, cost, and working expenses of the road.

The rolling stock consists of 5 engines, and 69 cars of three classes, all in good order.

Oliver Moses, Esq., of Bath, is President; C. A. Coombs, of Bath, Superintendent; L. S. Alexander, of Bath, Treasurer; Edwin Flye, of Newcastle, Clerk; E. R. Hamlin, of Bath, Master Machinist.

Portland and Ogdensburg Railroad.

This road is completed from Portland to the Fabyan House, 91 miles—51 miles of which is in this State.

Directors—Samuel J. Anderson, D. W. Clark, J. E. Donnell, H. N. Jose, W. F. Milliken, W. L. Putnam, J. S. Ricker, A. Spring, Portland; D. R. Hastings, Fryeburg.

Since the date of our last report, the construction of this road beyond the limits of this State has steadily progressed, and it is now completed to the Fabyan House, in New Hampshire.

As this is a line of road in the success of which the people of this State, and particularly the inhabitants of Portland (our chief city) are deeply interested, it may not be deemed improper for your Commissioners, in this report, to ignore State lines and give briefly some of the general characteristics of the road beyond our geographical limits.

The line commences at tide-water, Portland, and passes through several flourishing towns to Sebago Lake, 17 miles, where it attains an elevation of 270 feet above the starting point. Thence skirting the shores of this beautiful and attractive sheet of water, it passes by the villages of Steep Falls and Hiram bridge to the State line in Fryeburg, 51 miles from Portland, reaching an elevation of 460 feet—from this point to North Conway, N. H., 60 miles from Portland, and 525 feet above tide-water. The Portsmouth, Great Falls and Conway Railroad forms a connection with the Ogdensburg at the last named town. From North Conway the line follows the course of Saco river through beautiful interval lands, and in full view of the grand mountain scenery to Upper Bartlett, 72 miles from Portland and 680 feet above it. From the last named point it still follows the Saco to the Mount Crawford House, 78 miles from Portland, where it attains an elevation of 1,000 feet. From the Mount Crawford House to the Crawford House summit, 87 miles from, and 1,900 feet above tide water, making the average grade between the two last named points 100 feet to the mile.

The road continues from the Crawford to the Fabyan House, 91 miles from Portland and 1,580 feet above it. From this point the line is located to the Connecticut river, 110 miles from Portland and 850 feet above it, but no grading has been done on the last named section, with the exception of about 2 1-2 miles from Dalton to the Connecticut river.

The alignment from Portland to North Conway is 67 per cent. tangent and 33 per cent. curve; North Conway to Mount Crawford House, 74 per cent. tangent and 26 per cent. curve; Mount Crawford House to Fabyan's, 46 per cent. tangent and 54 per cent. curve. On that portion of the line between the Mount Crawford House and the summit, occurs a nearly continuous grade of

116 feet to the mile for 7 4-10 miles, with curves of differing radii—none, however, exceeding 9° or 637 feet radius, and where these sharp curves occur the grade has been reduced. The maximum ascending grade going west, between Portland and Upper Bartlett, is 80 feet per mile; and between the same points going east, the maximum ascending grade is 60 feet per mile; the maximum grade going west from the Mount Crawford House to the summit is 116 feet per mile, and from the summit to the Fabyan House the grade is 85 feet per mile. At the Fabyan House the road connects with the Boston, Concord and Montreal Railroad, and for the present the cars of the Portland and Ogdensburg road pass over the track of the B. C. & M. road, via Wings Mills, to Dalton, where they again come upon the P. & O. track, and connect by a bridge across the Connecticut river with the Vermont system of railroads to St. Johnsbury, &c. This arrangement, however, is temporary, and continues only until the completion of the P. & O. to the Connecticut river.

It will be noticed that the heavy grades descend from the west; this is a favorable feature, as it is confidently expected that this road will become one of the main lines for the transportation of the produce of the great West to the seaboard, and that the industries and products of the rich and enterprising sections of New Hampshire and Vermont, which this road passes through, will seek this outlet and add largely to its business.

The road is well constructed along the base of the mountains, between Bemis and the summit, being well protected by heavy retaining walls and ample water-ways.

Nearly three miles above Bemis, there is an iron trestle bridge about five hundred feet in length and seventy-five feet high, which is a model of symmetry and strength, and one of the principal points of interest to passengers over this road.

We have given these items, feeling that they possessed a particular attraction for railroad men; and certainly they are not devoid of interest to the general public, as showing that there is no limit to the possible achievements of well directed efforts and practical scientific skill, in overcoming the heretofore regarded impossibilities of nature. The track is in good surface and line; the road-bed well ballasted and drained. The pile bridges at Stroudwater and Shepherd's river, and the truss bridge at Breakneck-brook, have been repaired and strengthened in accordance with the suggestions made at our last examination.

The rolling stock of the road consist of 8 engines, 19 passenger, 4 baggage, 2 smoking, 7 crane, and 142 freight cars, all in good order. Items of cost, business, &c. will be found on another page.

Samuel J. Anderson, Esq., President; John F. Anderson, Chief Engineer; Jonas Hamilton, Superintendent; Wm. H. Anderson, Treasurer; Chas. H. Foye, Clerk; all of Portland.

Consolidated Maine Central Railroad and its Branches.

Directors—Hon. Abner Coburn, Skowhegan, Noah Woods, Bangor, F. W. Hill, Exeter, Darius Alden, Augusta, N. M. Whitmore, Gardiner, Arthur Sewall, Bath, William G. Paris, Portland, Maine; Frank Jones, Portsmouth, James W. Johnson, Portsmouth, New Hampshire; James P. Cook, Salem, John Wooldrige, Lynn, John Cummings, Woburn, George L. Ward, Boston, Mass.

Under the admirable management of the past season, this road has been operated with great regularity and safety to the traveling public, and we are happy to record another year in which no accident or injury has occurred to the patrons of this road. The two main lines of road between Portland and Waterville, one by the way of Brunswick and Augusta, and the other diverging from the first named at Cumberland Junction, and passing by Lewiston and Winthrop, are with two or three exceptions, in excellent condition, so also are the continuations of the lines from Waterville to Bangor, and Skowhegan.

Much attention has been given to the permanent improvement of the road-bed, in the way of grading and ditching. A large amount of new steel and iron rails, together with new ties, have been laid in the track, considerable masonry rebuilt, and new structures added. Two new spans of Whipple iron truss have been built in the important bridge over the Androscoggin river at Lewiston, and the road throughout its entire length between the termini, Portland and Bangor, will compare very favorably in track, road-bed and general structures, with any road in this country; and it seems to be the aims of the Managers to spare no effort or expense in perfecting it as rapidly as their means and opportunities will allow. The list of improvements during the past year, given on another page of this report, fully justify your Commissioners in making the above statement.

Since our last report, the heavy Pullman cars have been taken

from the trains, and lighter ones belonging to the same company substituted, thus removing in a measure the objections made in our report of last year, for Mr. Marsh, Superintendent of the Pullman Car Company, informs us that the cars "Leonora" and "Maritana," now in use upon this road, weigh $19\frac{1}{2}$ tons each, or about half as much as those formerly used, and not much exceeding the common passenger car.

Although in common with other interests, the railroads have felt the depressing influence of the stagnation of business in a falling off of gross receipts, yet it is believed that owing to the prudent management of this road the past year, the net earnings will compare favorably with the preceding years. Among the important items of improvement and repairs required next season, is the Presumpscot River bridge, lately in process of construction, but upon which the work is at present suspended; the bridge over the little Androscoggin at Auburn, that over the Emerson stream at West Waterville, and the two-mile brook pile bridge near Augusta, all of which should be removed and better structures substituted. The bridge over the Kennebec at Skowhegan should receive needed repairs.

The location of the road about one mile below Skowhegan, should we think, be changed for a short distance by grading a new road-bed into the side hill west of the present line, thus avoiding the constant liability to and recurrence of wash-outs during the spring and fall rains. The track on the Bath branch is in fair order,* and the long truss bridges over Sewall's and New Meadow's creeks, are both new and first-class in every respect.

Belfast and Moosehead Lake Railroad.

From Belfast to Burnham, $33\frac{1}{3}$ miles. Charles B. Hazelton, President, Belfast; Asa Faunce, Treasurer, Belfast.

This road is in fair condition, and but little has been done to improve it the past year. The line has been extended along the water front, and across the wharves to Simpson's wharf in Belfast, and proves a great convenience to shippers.

The pile bridge near Brooks has been strengthened by additional piles, and the two small truss bridges, one near Knox station, the other about six miles from Belfast, have been or are being repaired, as suggested by your Commissioners. The iron in the

* The iron rails are old and will need renewal very soon.

track is of excellent quality, and wears well. The great need of the road at the present time is more ballast, and this should be supplied the coming season. The pile bridge at the outlet of Unity pond, could without injury to any interest, and greatly to the advantage of the railroad company, be reduced to one-third of its present length by substituting a permanent rock and earth embankment for the present structure. The bridges, with the exception of the two before mentioned, are in good condition.

The road is operated by the Maine Central, and items of business, rolling stock, &c., are included in the returns of that company.

Dexter and Newport Railroad.

From Newport to Dexter—14 miles.

Charles Shaw, President, Dexter; George Hamilton, Treasurer, Dexter.

At our first examination of this road in the spring, we found it in very good condition, with the exception of the small truss bridge of about 45 feet span, between Moody's Mills and Dexter, which was found to be rotten in some of its timbers, and which Mr. Holt, who was with us, directed should be immediately made secure. This was done, and at our next examination we found it safe. The track and road-bed is well maintained. This road is an important feeder to the Maine Central, and doing a remunerative business, paying a fair interest on the investment of \$300,000, the cost of construction.

Returns included in those of the Maine Central.

Androscoggin, and Leeds and Farmington Railroads.

From Brunswick to Leeds Junction, with branch to Lewiston, and from Leeds Junction to Farmington—in all, 70½ miles.

At our last inspection of this road, in the fall, we found the track and road-bed greatly improved, and some of the bridges had received needed repairs, while embankments had taken the place of the trestle bridges at North Jay, Wilton Stream, Nos. 1 and 2, and the approaches to Little River. New bridges have been built at Little River and Moody brook, between Crowley's Junction and Brunswick; and the bridge at Sabbattisville, and that over the Androscoggin at Brunswick, have been strengthened. A new channel has been excavated for the Wilton Stream, avoiding the two twin bridges (so called), which have been a constant source

of annoyance and danger on account of their liability to be carried away by freshets.

There are several other bridges between Leeds Junction and Farmington, needing repairs or renewal, the most important of which is the trestle at Temple stream, West Farmington, the pile bridge at Sandy river, and the Shuy and Snelling trestle. There are others requiring slight repairs, to which the attention of the proper officers has been called.

That portion of the road between Leeds and Crowley's Junctions, although slightly improved from last year, is still in a somewhat dilapidated condition, and should be either entirely abandoned or put in better repair; and it will become the duty of the Commissioners to insist that one course or the other shall be adopted very soon. The track and road-bed of the branch from Crowley's Junction to Lewiston is in excellent condition, but the Bleachery and Bates canal bridges must be rebuilt the coming spring. The bridge over Oxford street is in process of reconstruction.

During the past year there has been laid in the track of the Maine Central Railroad and its branches, 497 tons of steel rails, (60 pounds to the yard), equal to $5\frac{1}{4}$ miles of track; 1,956 tons of re-rolled iron rails (60 pounds to the yard), equal to 20 63-100 miles; making 26 88-100 miles of new rails. 10,893 rails have been repaired and re-laid, equal to 21 74-100 miles of track; 79,998 new sleepers and 56,000 yards of gravel have been placed under 33.3 miles of track; 8,169 feet of new side track has been laid, and 30 97-100 miles of fence built; 545 lineal feet of new bridges, and $4,235\frac{1}{2}$ yards of masonry, have been built. In addition to the above, there have been a large number of new buildings erected, the most important of which is the new brick building at Portland, for the general offices of the company, and the large brick engine house at Waterville. The building at Portland is 48 x 60 feet, and two stories above the basement. There are three large fire-proof vaults, one for the Treasurer and one for the General Ticket Agent, 7 feet 6 inches by 12 feet 3 inches, on the first floor; and one 15 feet 6 inches by 12 feet 3 inches, on the second floor, for plans and records. The building is warmed by Clogston's Patent Steam Apparatus. The first floor is used for the Treasurer and General Ticket Agent's offices; the second floor for the President, Directors, Superintendent and Chief Engineer. The whole structure is well adapted to the purposes for which it is intended.

The new brick engine house at Waterville is a very fine building, and when completed is arranged to accommodate 48 engines; 12 pits have been completed this year, and the iron turn-table built by the Keystone Bridge Company of Pittsburg, Pa. All the pits are capped with granite, and the work is done in a thorough and substantial manner.

The new iron bridge at Lewiston was built by Messrs. Clarke, Reeves & Co., of Philadelphia, and is a first-class bridge. It is 16 feet from center to center of trusses, and 28 feet high. The track drops 7 feet below the top chords. The spans are 164 and 153 feet from center to center.

Since the year 1871, 125 3-100 miles of track has been laid with new rails, equal to 38 22-100 per cent. of the whole road, and 397,836 new sleepers, equal to 38 15-100 of the whole number in the track; 142 34-100 miles of fence, equal to 23 72-100 per cent. of the entire line, and 6,028 lineal feet of new bridges, equal to 28 43-100 per cent. of the whole length of bridging upon the road. The rolling stock is in good condition, and statement of the amount, with other items of interest, will be found in the Treasurer's returns on another page.

The gentleman now occupying the position of President of the Maine Central Railroad Company, has long been well known as one of the most honorable and successful business men of Maine. After many years of untiring attention to the minutest details of his extensive business, and as a result, the accumulation of a large property, and having filled acceptably the highest office in the gift of the people of this State, he now in the closing years of life, with faculties unimpaired, sets an example of industry and devotion to the great interests of the State, worthy of his past record.

Officers of Maine Central Railroad Company: Hon. Abner Coburn, President, Skowhegan; John Wooldridge, Vice President, Lynn, Mass.; Payson Tucker, Superintendent, Portland; J. S. Cushing, Treasurer, Portland; Thomas Holt, Chief Engineer, Portland; John W. Philbrick, Master Mechanic, Waterville.

Abstract of Returns from the several Railroad Corporations, as required by Chapter 51, Section 30 of the Revised Statutes, as amended in Chapter 218.

NAME OF ROAD.	DESCRIPTION OF ROAD.									
	Length of Road in operation. Miles.	Length of single track. Miles.	Length of double track. Miles.	Length of sidings and spur tracks. Miles.	Time when laid.	Length laid with steel rails. Miles.	Weight of rail per yard. Pounds.	Length laid with fished joints and of what sort. Miles.	Length laid with chair joints. Miles.	Length laid with Whitman's imp. cross ties. Miles.
Androscoggin.....	-	-	-	-	-	-	-	-	-	-
Atlantic and St. Lawrence	149—82 in Me.	149	None.	28	1848 to 1853	51	65	Whole line all iron.	None.	None.
Bangor and Piscataquis.....	54½	-	-	2	-	-	-	-	-	-
Bath Branch	-	-	-	-	-	-	-	-	-	-
Belfast and Moosehead Lake	33	33	None.	-	-	-	-	-	-	-
Boston and Maine.....	201 961	162.961	39	71	1836 to 1873	69	60	All but 10 miles Trimble joint.	10	None.
Bucksport and Bangor.....	18 8-10	18 8-10	None.	1	1874	None.	56	19 8-10	None.	None.
Dexter and Newport	14	14	-	1	1868	-	55	14½	½	-
European and North American.	205½	205½	None.	12	1868 to 1875	None.	56 and 60	All.	None.	None.
Grand Trunk.....	-	-	-	-	-	-	-	-	-	-
Houlton Branch	-	-	-	-	-	-	-	-	-	-
Knox and Lincoln	49	49	None.	3	1870 and '72	None.	56	Iron, 49	None.	None.
Leeds and Farmington.....	-	-	-	-	-	-	-	-	-	-
Lewiston and Auburn.....	-	-	-	-	-	-	-	-	-	-
Maine Central.....	357	357	None.	42	-	8	60 to 63	Double fish, 297	58	3
Portland (Horse).....	6½	6½	3-8	-	1863 and '64	-	33, 38 & 40	-	-	-
Portland and Kennebec.....	-	-	-	-	-	-	-	-	-	-
Portland and Oxford Central	-	-	-	-	-	-	-	-	-	-
Portland and Ogdensburg	91	91	None.	8½	-	None.	56	All iron.	None.	1
Portland and Rochester.....	52	-	None.	-	-	-	56	-	-	-
Portland, Saco and Portsmouth	52	52	None.	-	-	None.	56 and 60	-	-	-
Portsmouth, Great Falls and Conway ..	-	-	-	-	-	-	-	-	-	-
Somerset.....	20	20	-	2-3	1872 and '74	-	50	20 m.	-	-
St. Croix and Penobscot.....	22	22	None.	8	1850 to 1856	None.	52 and 56	4 miles, iron.	18	None.
Whitneyville and Machiasport.....	7½	7½	None.	None.	1842 and '43	None.	-	None.	None.	None.

Abstract of Returns of the several Railroad Corporations—Continued.

NAME OF ROAD.	CAPITAL STOCK.		COST OF ROAD.				
	Capital Stock	Amount called and paid in.	Whole cost of road.	Amount expended for purchase of lands.	For grading.	For engineering	For bridging.
Androscoggin	-	-	-	-	-	-	-
Atlantic and St. Lawrence	\$5,000,000 00	\$5,000,000 00	\$8,484,000 00	-	-	-	-
Bangor and Piscataquis.	-	-	-	-	-	-	-
Bath Branch	-	-	-	-	-	-	-
Belfast and Moosehead Lake	950,000 00	725,000 00	-	-	-	-	-
Boston and Maine	7,000,000 00	6,921,274 52	9,442,550 45	\$2,429,582 87	\$2,672,067 86	\$446,338 56	\$929,332 09
Bucksport and Bangor	316,100 00	276,438 25	590,580 41	62,430 55	160,000 00	12,608 13	42,946 00
Dexter and Newport	-	122,000 00	300,000 00	-	-	-	-
European and North American	10,000,000 00	-	-	-	\$95,000, incl.	-	-
Grand Trunk	-	-	-	-	masonry, &c	-	-
Houlton Branch	-	-	-	-	-	-	-
Knox and Lincoln	2,000,000 00	364,580 00	2,579,532 53	116,500 00	1,679,432 54	45,500 00	273,500 00
Leeds and Farmington	-	-	-	-	-	-	-
Lewiston and Auburn	{ Authorized,	-	-	-	-	-	-
Maine Central	5,000,000 00	3,587,000 00	9,962,419 58	-	-	-	-
Portland (Horse)	157,600 00	157,600 00	175,000 00	20,000 00	-	-	-
Portland and Kennebec	-	-	-	-	-	-	-
Portland and Oxford Central	-	-	-	-	-	-	-
Portland and Ogdensburg	2,000,000 00	1,051,346 31	2,942,185 98	78,373 45	1,395,378 62	133,818 84	275,337 71
Portland and Rochester	1,000,000 00	636,111 86	1,933,173 27	-	-	-	-
Portland, Saco and Portsmouth	1,500,000 00	1,500,000 00	2,226,612 50	157,104 86	437,701 32	48,730 46	108,830 83
Portsmouth, Great Falls and Conway	-	-	-	-	-	-	-
Somerset	2,500,000 00	301,899 00	613,390 00	308,900 00	900 00	12,401 00	27,549 00
St. Croix and Penobscot	2,000,000 00	100,000 00	569,000 00	13,119 91	55,814 81	1,468 72	8,051 08
Whitneyville and Machiasport	100,000 00	100,000 00	-	-	-	-	-

Abstract of Returns of the several Railroad Corporations—Continued.

NAME OF ROAD.	Whole cost of operating.	Number of passenger trains during the year	No. of freight trains during the year.	No. of mixed trains during the year.	Average No. of passengers per train.	Average number tons freight per train.	No. of through and way passengers.	Aver. receipts per passenger per mile.	Aver. receipts per ton freight per mile.
Androscoggin.....	-	-	-	-	-	-	-	-	-
Atlantic and St. Lawrence.....	\$1,104,266 68	2,726	4,251	-	-	-	171,364	-	-
Bangor and Piscataquis.....	Included in	European	and North	American	-	-	-	-	-
Bath Branch.....	-	-	-	-	-	-	-	-	-
Belfast and Moosehead Lake.....	-	-	-	-	-	-	-	-	-
Boston and Maine.....	1,780,761 70	per day, 130	per pay, 12	per day, 2	117	100	4,906,779	2 9-10 cts	007
Bucksport and Bangor.....	-	-	-	-	-	-	-	-	-
Dexter and Newport.....	-	-	-	-	-	-	-	-	-
European and North American.....	350,989 58	3,358	2,668	-	80 46-100	60	270,198	3 1-2 cts.	2 8-10 cts.
Grand Trunk.....	-	-	-	-	-	-	-	-	-
Houlton Branch.....	-	-	-	-	-	-	-	-	-
Knox and Lincoln.....	77,417 40	4 per day	2 per day	None.	74 1-2	44	93,214	04 52-100c	06 33-100c.
Leeds and Farmington.....	-	-	-	-	-	-	-	-	-
Lewiston and Auburn.....	-	-	-	-	-	-	-	-	-
Maine Central.....	-	per day, 32	per day, 16	per day, 10	-	-	679,408	3 1-2 cts.	4 2-100 cts.
Portland (Horse).....	45,062 55	48,607	-	-	-	-	898,575	2 cts.	-
Portland and Kennebec.....	-	-	-	-	-	-	-	-	-
Portland and Oxford Central.....	-	-	-	-	-	-	-	-	-
Portland and Ogdensburg.....	128,709 45	428	184	596	-	-	-	-	-
Portland and Rochester.....	-	2,250	624	-	65	100	148,465	.0275	-
Portland, Saco and Portsmouth.....	-	1,252	1,565	313	143	150	197,067	-	-
Portsmouth, Great Falls and Conway.....	-	-	-	-	-	-	-	-	-
Somerset.....	16,767 79	-	-	625	10 2-10	12 7-10	6,403	3 6-10 cts.	6 7-10 cts.
St. Croix and Penobscot.....	35,369 16	None.	1,092	2,326	-	-	14,342	-	1 94-100
Whitneyville and Machiasport.....	-	None.	-	-	-	-	-	-	-

RAILROAD COMMISSIONERS' REPORT.

Abstract of Returns of the several Railroad Corporations—Continued.

NAME OF ROAD.	NUMBER OF			CARS.				NUMBER OF MILES RUN BY				
	Depots.	Engine houses.	Engines.	Passengers.	Baggage and Mails.	Freight.	Others.	Passenger trns.	Freight trains.	Mixed trains.	Other trains.	Average rate of speed of each, Miles pr. hour.
Androscoggin.....	-	-	-	-	-	-	-	-	-	-	-	-
Atlantic and St. Lawrence.....	33	7	49	44	-	-	-	249,017	592	989	33,679	{ Passenger 20 }
Bangor and Piscataquis.....	10	2	4	2	2	71	-	In European and	North American.		{ Freight 12 }	
Bath Branch.....	-	-	-	-	-	-	-	-	-	-	-	-
Belfast and Moosehead Lake.....	-	-	-	-	-	-	-	-	-	-	-	{ Passenger 30 }
Boston and Maine.....	82	11	73	163	-	1628	-	1,033,924	497,909	44,742	-	{ Freight 12 }
Bucksport and Bangor.....	-	-	-	-	-	-	-	-	-	-	-	{ Mixed 24 }
Dexter and Newport.....	2	2	-	-	-	-	-	-	-	-	-	-
European and North American.....	34	6	22	19	10	428	-	217,695	152,385	-	-	{ Passenger 22 }
Grand Trunk.....	-	-	-	-	-	-	-	-	-	-	-	{ Freight 13 }
Houlton Branch.....	-	-	-	-	-	-	-	-	-	-	-	-
Knox and Lincoln.....	9	2	5	-	69	-	-	64,872	36,713	-	5,346	{ Passenger 22 }
Leeds and Farmington.....	-	-	-	-	-	-	-	-	-	-	-	{ Freight 15 }
Lewiston and Auburn.....	-	-	-	-	-	-	-	-	-	-	-	{ Passenger 25 }
Maine Central.....	72	19	60	57	32	1,443	20	517,993	407,393	19,210	293,248	{ Freight 15 }
Portland (Horse).....	-	-	-	-	-	-	18	191,087½	-	-	-	5
Portland and Kennebec.....	-	-	-	-	-	-	-	-	-	-	-	-
Portland and Oxford Central.....	-	-	-	-	-	-	-	-	-	-	-	{ Passenger 22½ }
Portland and Ogdensburg.....	19	6	8	19	4	142	3	75,207	12,144	40,552	33,013	{ Mix'd & ft. 10 }
Portland and Rochester.....	15	4	7	9	5	137	26	90,796	32,448	-	-	25
Portland, Saco and Portsmouth.....	13	3	16	-	2	175	-	148,320	148,956	4,695	77,001	{ Pass. 20, ft. 12 }
Portsmouth, Great Falls and Conway..	-	-	-	-	-	-	-	-	-	-	-	{ Mixed 15 }
Somerset.....	2	1	2	-	13	-	-	-	-	11,752	-	20
St. Croix and Penobscot.....	4	3	4	4	4	230	-	-	3,278	27,298	-	14
Whitneyville and Machiasport.....	-	1	2	-	-	46	-	-	-	-	-	8

Abstract of Returns of the several Railroad Corporations—Continued.

NAME OF RAILROAD.					Am't charged for depreciation of road and other property.	Number of persons injured in life or limb. Cause of injury, and whether passengers or employees.	Whether such accident arose from carelessness or negligence on part of employee, if so is person still employed?
	Whole number of stockholders.	No. who reside in the State.	Amount of each dividend.	When made.			
Androscoggin.....	-	-	-	-	-	11 in all.	-
Atlantic and St. Lawrence.....	269	123	2 of 3 pr. ct.	1st July & Jan'y.	-	7 employees.	-
Bangor and Piscataquis.....	-	-	-	-	-	4 neither.	-
Bath Branch.....	-	-	-	-	-	-	-
Belfast and Mooshead Lake.....	211	206	-	-	-	-	-
Boston and Maine.....	4,234	230	280,000	May & Nov 15th	Nothing.	20 in all. 3 pass'r 7 employees.	3 negligence of employees; the last from carelessness.
Bucksport and Bangor.....	117	112	-	-	-	10 trespassers.	-
Dexter and Newport.....	1,220	1,212	3 per cent.	Mar 2 & Sept. 2	-	-	-
European and North American.....	344	215	None.	-	Nothing.	2—1 killed; 1 injured	-
Grand Trunk.....	-	-	-	-	-	-	-
Houlton Branch.....	-	-	-	-	-	-	-
Knox and Lincoln.....	252	243	None.	-	Nothing.	1, an employee, killed.	Carelessness.
Leeds and Farmington.....	-	-	-	-	-	-	-
Lewiston and Auburn.....	-	-	-	-	-	-	-
Maine Central.....	641	500	-	-	-	-	-
Portland (Horse).....	115	105	5 per cent.	1874.	-	1—neither.	No blame attached to the company.
Portland and Kennebec.....	-	-	-	-	-	1—neither.	-
Portland and Oxford Central.....	-	-	-	-	-	-	-
Portland and Ogdensburg.....	232	223	None.	-	Nothing.	1—employee.	-
Portland and Rochester.....	-	-	-	-	-	-	-
Portland, Saco and Portsmouth.....	1,485	99	75,000	Jan'y & July.	Nothing.	3—2 empl; 1 trespass.	Jamb'd by cars and hit by bridge.
Portsmouth, Great Falls and Conway.....	-	-	-	-	-	-	-
Somerset.....	120	119	-	-	-	-	-
St. Croix and Penobscot.....	64	25	-	-	Nothing.	-	-
Whitneyville and Machiasport.....	6	2	-	-	-	-	-

Abstract of Returns of the several Railroad Corporations—Concluded.

NAME OF ROAD.	AVERAGE PAY OF EACH OF THE FOLLOWING GRADES.								
	Number of employees of every sort.	Conductors.	Baggage Masters.	Station agents.	Switch-men.	Engine drivers.	Firemen.	Brakemen.	Foremen of track sections.
Androscoggin.....	-	-	-	-	-	-	-	-	-
Atlantic and St. Lawrence.....	238	\$56.84 pr. m.	\$41.17	\$48.83	\$39.93	\$2.75 pr. day	\$1.65	\$38.83	\$1.87
Bangor and Piscataquis.....	-	-	-	-	-	-	-	-	-
Bath Branch.....	-	-	-	-	-	-	-	-	-
Belfast and Moosehead Lake.....	-	-	-	-	-	-	-	-	-
Boston and Maine.....	1,600	72.23	52.98	64.79	50.00	91 03	42 56	40.64	49.40
Bucksport and Bangor.....	-	-	-	-	-	-	-	-	-
Dexter and Newport.....	-	-	-	-	-	-	-	-	-
European and North American.....	-	65 00	43 00	10 to 65	1.70	48 to 71.25	1.65	1.60	1.50
Grand Trunk.....	-	-	-	-	-	-	-	-	-
Houlton Branch.....	-	-	-	-	-	-	-	-	-
Knox and Lincoln.....	78	65	45	40	-	65	45	40	1.75
Leeds and Farmington.....	-	-	-	-	-	-	-	-	-
Lewiston and Auburn.....	-	-	-	-	-	-	-	-	-
Maine Central.....	-	20; \$70 m.	45	50	40	2 81 pr. day	1.70 pr. day	-	1.75
Portland (Horse).....	40	40 pr. m.	-	-	-	-	-	-	-
Portland and Kennebec.....	-	-	-	-	-	-	-	-	-
Portland and Oxford Central.....	-	-	-	-	-	-	-	-	-
Portland and Ogdensburg.....	213	65 00	45 00	31 10	50 00	3 00 pr day	1 67 pr. day	40 00	50 00
Portland and Rochester.....	130	75 00	1.75 pr. day	1.50	1.50	2.50	-	1.50	1.75
Portland, Saco and Portsmouth.....	329	90 00	54 00	55 00	42 00	3, 3½ & 3¾	1 65 & 1 80	45 00	48 00
Portsmouth, Great Falls and Conway.....	-	-	-	-	-	-	-	-	-
Somerset.....	26	50 00	-	35 00	18 00	65 00	40 00	20 00	1 75
St. Croix and Penobscot.....	37	2 00	-	2 00	-	1 85	1 50	1 50	2 00
Whitneyville and Machiasport.....	-	-	-	-	-	-	-	-	-

A C C I D E N T S .

Grand Trunk.

January 15. John Fitzgerald, a laborer, was run over and killed in the Grand Trunk freight yard.

March 6. There was a disastrous collision between the down morning train from Lewiston and a "wild" engine running northward. P. C. Evans, baggage master, had his arm broken and his side crushed in, and died of his injuries. Oliver P. Cummings, engineer of the down train, had his leg badly broken. Mr. Samuel D. Whitehouse was injured and died the same day. The Coroner's Jury found under the following painful circumstances:

"And we further find that his death was caused by injuries received while he, the said Samuel D. Whitehouse, was riding on the engine of the morning passenger train, called No. 1, on Saturday, March 6th, 1875, between the hours of 8 and 9 o'clock A. M., running from Lewiston to Portland, on the Grand Trunk Railway, while passing from North Yarmouth station to Yarmouth Junction, on said railway, which train was run into by a 'wild' engine coming in the opposite direction on said railway, and driven by one Charles D. Noyes, an engineer on said railway. And we, on our oaths, further find that said Charles D. Noyes was running said 'wild' engine on said railway at the time of said accident, and at said place, without clearance orders from the managers of said railway, contrary to the rules and regulations of said railway company; which running of said 'wild' engine on said railway by Charles D. Noyes, at said time and place, without said order, was the immediate cause of the collision which resulted in the death of said Samuel D. Whitehouse "

November —. Frank Neally had his hand crushed while shackling cars in the Grand Trunk yard.

December 15. Thomas Harper of Portland, a brakeman on the Grand Trunk, was severely injured by his head striking a bridge at Bethel.

Maine Central.

December 10. Charles H. Mitchell, an employee at the Maine Central depot at Bath, was very seriously injured by the sliding off of a part of a car load of plank upon him.

July —. Charles Winslow, standing on the platform at Win-

throp, stepped from the platform just as the train from the East was approaching, which struck and killed him.

December 11. A paymaster's train came in collision with a hand car near Marston's Curve, between Waterville and West Waterville. The finding of the Coroner's Jury was "that Silas H. Potter died at Waterville, Dec. 11th, 1875, at 9 o'clock A. M., and John Hoar at said Waterville, on the 11th of December, at 1 P. M., and that both came to their deaths by reason of injuries received on a hand car on the Maine Central Railroad, by being run into by a special train; that the accident occurred while Potter was going over the road in his capacity of section master, and Hoar while riding with Potter on the hand car, not being in the service of the railroad."

November 20. A young man by the name of Haynes, a brakeman on the road, was standing on top of the box cars near Belgrade, when the train approached an overhead bridge, and before Haynes saw it he was brought in contact with it, and was thrown violently from the train to the side of the track. He expired before aid could reach him.

November 19. N. O. Mitchell of Gardiner, a merchant of character and large business, was very seriously injured by being struck by a train, while standing on the track at the depot in that city; and on November 30, Mr. Mitchell died, and Gardiner loses by his death an esteemed citizen.

November 30. Alexander Bailey, 50 years old, a carpenter in the Maine Central railroad shop, in attempting to get off a train at Woodford's Corner, slipped and fell beneath the wheels and was terribly crushed; he lived but a short time.

Knox and Lincoln.

The report of the Treasurer to us, states that one man was killed, an employee, from his own carelessness.

Portland and Ogdensburg.

Calvin Kingman had his arm slightly fractured while oiling his engine.

Consolidated European and North American Railway.

September 13. Mrs. Moran, an old lady residing in Hazel Lane, Bangor, while sitting on the track, was accidentally run over and killed.

November 13. Joseph W. Noyes of Bangor, a clerk in J. T. Rines & Co.'s store, 17 years of age, went to the E. & N. A. depot to deliver a bundle to a lady on the train, and in a hurry grasped the hand rail on one of the cars as the train was moving, with the intention of jumping on. He was running along in this way when he tripped and fell against a bale of rags. This threw him down, and before he could recover himself he was under the train, and two of the wheels passed over his body immediately across the heart. He was carried into the depot and expired in a few moments. He was a pleasant, genial young man, and his death is a great loss and affliction to his widowed mother, the relict of the late Daniel Noyes, who was killed in the late war. An inquest was held, and the verdict of the coroner's jury was that the young man met his death accidentally, and without blame to the employees of the road.

November 20. Another very sad accident occurred on the E. & N. A. railway, in front of Dole & Fogg's planing mill on Front St., Bangor, near the Maine Central depot. The shifting engine, employed all the time in the yard of the E. & N. A. road, was pushing a train of six cars on to the side track which leads to High Head. Steam was shut off and the train was dropping down—it is a down grade—of its own weight, and moving about four miles an hour. Capt. Jasper A. Roberts of the schooner "Aurelia," lying at a wharf near the foot of Railroad street, was on his way to his vessel, and had occasion to cross this side track upon which the shifting engine was at work, and walking along some six or eight feet aside the track, slipped and fell on it about one rod ahead of the rear car which was being backed down. The train passed over him, killing him instantly. The man may have been so occupied in his mind that he did not notice that the train was within a few seconds of him when he stepped on to the track, although the bell was ringing all the time the train was in motion. The Coroner's Jury, which held an inquest over the body, found there was no fault or negligence on the part of the road or the employees.

May 19. A. Gillis stepped on to the track before a slow moving log train, at St. Croix, and was instantly killed. The bell was ringing at the time. Verdict, "No one to blame."

September 1. Mrs. D. M. Auliff, in getting off a returning excursion train, fell and was injured in her right foot, at Orono.

*Portland, Saco and Portsmouth Railroad.**

November 20. Charles Welch, a brakeman on the Eastern road, was caught between the bunters while shackling cars at Kennebunk, by which four of his ribs were broken, and he received other injuries.

May —. Frank Butler, a brakeman, was killed at the P. S. & P. station in Portland, while shackling cars. Coroner's Jury exonerated the company from all blame.

Mr. J. E. Robinson, the Treasurer of the Knowlton Platform and Car Coupling Company of Rockland, Me., has called the attention of the Commissioners to their new draw-bar and self coupler. We have seen the model, and it appears to work well and answer the purpose for which it is intended. We hope it will be fully tested, and if it proves all that is claimed for it, it will certainly be a valuable addition to the rolling stock of railroads, and will prevent many accidents like those recorded above.

RAILROAD PROFITS.

We quote from the Manual of Prof. Vose before referred to, a terse paragraph upon methods of increasing railway profits, and commend its suggestive thought to railroad managers :

“First. To manage the traffic so as to cause the cars to carry more complete loads, thus to reduce the ratio of the non-paying weight. *Second.* To arrange the trains so as to give the largest number of cars to each engine. *Third.* The reduction of speed of both passenger and freight trains to the lowest standard consistent with the demands of the business. *Fourth.* To diminish as far as possible express trains, except so far as the number of stops shortens the time of traversing the road. *Fifth.* Not to increase the number of trains beyond a reasonable accommodation of traffic. *Sixth.* So controlling the movement of the rolling stock that the greatest amount of service may be derived from it. *Seventh.* Adjusting the tariffs, where the business is chiefly in one direction, so as to attract return traffic, that the cars may not run without a load. *Eighth.* Reducing the friction, by which the cost of repairs of rolling stock is diminished and the facility for economical transportation proportionally increased.”

Another enquiry is here pertinent to the point we are considering, whether the equipment of roads may not be lighter, with equal safety to passengers and freight, so that there may be a reduction of the dead weight hauled. Mr. Haughton, C. E., states, in a paper upon the paying and non-paying weights drawn by the locomotive engine, in 1867: "Thus it appears from the returns, that the average British passenger car weighs two tons, with train accessories, and that the ton of goods weighs $3\frac{3}{4}$ tons. In this country it is stated that the transportation of each passenger involves, upon an average, the hauling of one ton of gross weight, and each ton of freight the hauling of $2\frac{1}{2}$ tons." Now the manufacturers of engines and cars can make them lighter and yet strong, and the percentage of paying weight hauled to the whole load be safely increased, we believe, with a saving in the wear and tear of the road and in the original cost of the equipment. We do not care now to elaborate this point more, but beg at least to invite the attention of railway men to the subject.

Mr. Holt, Chief Engineer of the Maine Central, in another way, but with the same object in view, of increasing the profits of his road, offered, May 1, 1874, premiums to the three section foremen in each division of the road "who should perform the most labor on their section at the least expense." He, with practical good sense, hoped thus to interest his men in their work and thereby to stimulate them to keep the road in better repair and at less cost. Of Mr. Holt's experiment we said last year in our report, "The result confirmed the opinion expressed in previous reports, that the adoption of a regular system of rewards or compensation for continued meritorious conduct in railroad service, would unquestionably prove the best inducement, *short of giving them a direct interest in the profits* that might be solicited from it, that could be offered for future zeal therein."

And we now beg to go one step further, and to suggest to railroad managers the experiment of giving employees a *direct interest* in the profits of their road. It would seem to us that it might have the advantage of stimulating operatives to greater exertion, thus reducing the cost of labor, and of making employees more vigilant—thus lessening the chances of accidents. For their percentage of the profits would be directly greater, as the cost of labor was lessened and damages from casualties were avoided.

The employees by this system would become limited partners with the owners, and be interested to swell the net earnings, in

which all were to share. The employees would be practically owners for the time being, instead of hired operatives. Their good conduct would be likely to become still better, and the responsibility of their position more sensitively felt.

How generally among railroads it may be practicable to introduce this coöperative principle, or how far down among employees it may be wise or possible to extend it, may depend very largely upon circumstances. Its practicability may be affected by the condition of a road, or the price of labor outside, or other disturbing cause. And something, too, may depend upon the *formula* of contract which may come into use, to embody the agreement between the road and the party to operate it and to regulate the execution of its details. It should be just to all, and plain in its statement of the agreement, and its provisions should discriminate equitably in its division of earnings between the capital of the road and the skilled and unskilled labor of the operators.

We are not advised to what extent railroad managers have ventured upon this or similar experiment. The Philadelphia, Wilmington and Baltimore Railroad Company tried it several years before the Rebellion with eminent success, but gave it up after "the civil strife,"—as the late president of the road, Mr. S. M. Felton, writes us—"had so deranged the prices for materials and labor that no satisfactory basis for agreement could be made;" but he adds further on, in speaking of the plan, "I do not believe that any road was ever operated as cheaply. My impression is, that during one year the percentage of operating expenses to receipts was only twenty-nine (29)."

The theory of this coöperative principle, tried by the P. W. & B. road, is, that the employees shall run the road and keep it in repair, receiving a stipulated compensation for a certainty, as under the old system, and contingently more in a pro rata of the net earnings besides.

In a contract we have before us, which is one made by parties of the first part, as quasi lessees with the P. W. & B. R. Co., of the second part as lessors, yet retaining the absolute control and right of interference to manage as if no sub-contract to operate the road had been entered into,—it is recited among other things, with a great deal of detail, necessary to such a contract, but not necessary to be copied here to a right understanding of the theory or principle, which only we wish to present.

“This contract has for its object and intended operation and effect, to secure the full and perfect performance, by the parties of the first part, of all the departments of railroad service to which it relates, for the several amounts of compensation below stipulated to be paid to the said parties of the first part, so that the said party of the second part shall be entirely exempt from all outlay and expense whatsoever, on account of the same, beyond the said stipulated amounts.

It being at the same time understood and intended that the said departments of railroad service shall, in all particulars whatsoever, be under the supervision of the President of the said Railroad Company, and subject to his control, as fully and perfectly to all intents and purposes as if no such contract existed, and the work in said departments were done in the ordinary manner by salaries and days' works; and that so far as regards all claims for injuries, the parties of the first part, and all persons whose services shall be engaged by them for the execution of this contract, shall stand towards the said party of the second part in the same legal relations precisely as though the said parties and persons were engaged in the service of the said Railroad Company, each one by a special contract with its President.”

“ARTICLE 1. In consideration of One Dollar, the receipt whereof is acknowledged, and for other valuable considerations, the parties of the first part hereby agree, and engage to do and perform, at their own cost and charge, for the term of one (1) year, beginning on the first day of November, A. D. 1861, all the things specified in this Article, viz :

1st. To keep in thorough repair and efficient condition the said line of road, embankments, roadway and track, all included, which engagement applies to the entire main track, and to all yard tracks, sidings, switches and frogs, and crossings, but does not apply to any part of the bridges except the track. Said service on the part of the parties of the first part to include the preparation of all materials, except burnettizing timber, as well in the shops as on the ground, together with the conveying and putting in place of the same, and also the digging of ditches, and of earth and gravel, and the transportation of the same for maintaining the present roadway and grade, and also the collection for preservation of all old materials taken out in such operations of repair and renewal. For this purpose the said party of the second part will provide all the materials, and the parties of the first part will provide all the labor and superintendence.

2d. To relay all track required, including main-track, yard-track and sidings, switches and frogs, and crossings. Said service to include the preparation of all materials, (excepting only that of joint blocks, bolts and staples, clamps, washers and plates, which articles shall be furnished by the said party of the second part ready prepared,) and to include also the conveying and putting in place of all materials, the digging of ditches, and the digging and transporting of earth and gravel for the above.

As compensation for all the services stipulated under head 1st, and head 2d, the said parties of the first part shall be paid the annual sum of —— dollars, being a monthly instalment of —— dollars, and shall further be paid at the rate of —— dollars per mile for the relaying of all track,” &c., &c.

"3d. To keep in thorough repair and efficient condition, and to provide all the labor and materials therefor, all Water Stations, and all apparatus connected therewith, on the said line of road, its two extremities included, and also all fences and guard fences on the same line. Also, to build and to provide all the labor and materials therefor, except as hereinafter excepted, all new fences which may be required by the said party of the second part, &c.

As compensation for all the services stipulated under head 3d, the said parties of the first part shall be paid the annual sum of ——— dollars, being a monthly instalment of ——— dollars, and shall further be paid at the rate of ——— cents per rod for new fence built."

"4th. With such Engines and Tenders as may be assigned for the purpose, and entrusted to them to run all trains upon the said line of road, to and from such points, at such times and at such speeds, as may be prescribed by the said President; for which purpose they will provide for the said Engines and Tenders all Enginemen, Firemen, Greasers and Cleaners, and also all the Wood, Coal, Oil, Fluid and Waste."

"5th. To keep the said Engines and Tenders, and also the Machinery and Tools, including Machinery in Machine Shops which may be entrusted to them for use, in thorough repair and efficient condition," &, &c.

"As compensation for all the services stipulated under head 4th, and head 5th, the said parties of the first part shall be paid for each and every mile run by Locomotives carrying trains, or run for the purpose of carrying trains, at the rate of ——— cents per mile for each mile run."

"6th. To provide all the Fuel, both Wood and Coal, for all Passenger, Freight and Water stations; for all Engine Houses, and all Machine, Blacksmith, Carpenter and Car shops; for all Bridges, and all Switch and Signal boxes; for all Cars; all Depots and Offices included."

"As compensation for all the services stipulated under head 6th, the said parties of the first part shall be paid the annual sum of ——— dollars, being a monthly instalment of ——— dollars."

"7th. To perform the whole service of the Freight Department on the said line of road, and to assume all liabilities for and to indemnify the said party of the second part against all losses of and damage to articles of freight, for which said party of the second part would be responsible if no such contract existed."

"As compensation for all the services stipulated under head 7th, the said parties of the first part shall be paid the annual sum of ——— dollars, being a monthly instalment of ——— dollars. And should the number of tons of Freight carried during the year exceed one hundred thousand (100,000) tons, then and in such case there shall be paid to the said parties of the first part the additional sum of ——— cents for each and every ton carried over and above the said one hundred thousand (100,000) tons. And shall also be paid the sum of ——— dollars per month, dating from April 1st, 1862, as compensation for extra service on Through Freight."

"ARTICLE 2. In regard to all engagements expressed under the foregoing Eighteen Heads, it is agreed that the same are to be performed by the said parties of the first part at their own cost and charge."

"ARTICLE 3. In consideration of the foregoing engagements, entered into

by the said parties of the first part, and of their faithful performance, the said party of the second part doth hereby engage as follows :

“1st. That the parties of the first part shall during the existence of this Contract and for the purpose of fulfilling its requirements and for no other purpose whatever, have the custody and the use without cost or charge, except as specially expressed, of all the Locomotives and Stationary Engines, Shops and Buildings, Machinery and Tools, belonging to the said party of the second part, and now used for the same purposes, the said parties of the first part engaging in regard to all property so placed in their custody, as is stipulated in various places in this Contract.”

“7th. That if the gross earnings on the P. W. & B. Railroad for the fiscal year over which this Contract extends shall not exceed the gross earnings for the fiscal year ending October 31st, A. D. 1860, then and in such case the several amounts of compensation stipulated under the several heads of Article 1, shall be in full for all services rendered. If, however, the gross earnings for the fiscal year over which this Contract extends shall equal or exceed those for the fiscal year ending October 31st, A. D. 1861, in such case the parties of the first part shall receive, in addition to the said stipulated compensation, the sum of Four Thousand (4000) Dollars; and should the gross earnings for the fiscal year 1862, although falling short of those for the fiscal year 1861, still exceed those for the fiscal year 1860, in such case the said parties shall receive a proportional part of the said sum of Four Thousand (4000) Dollars, according as the excess of the fiscal year 1862 over 1860, compares with the excess of 1861 over 1860.”

“ARTICLE 5. An inventory shall, at the commencement of this Contract, be taken of all Engines and Tenders, all Cars, all Shops and other Buildings, all Machinery and Tools, entrusted to the said parties of the first part, also an exact account of all materials of every kind suitable to the purposes of this Contract, now belonging to the said party of the second part and which it shall see fit to entrust to the custody of the said parties of the first part,” &c.

“ARTICLE 7. The parties of the first part, themselves, and all persons by them engaged for the purposes of this Contract, shall in all particulars relating thereto, be under the absolute control of said President, who shall at all times have full power to discharge any and all of said employees, as though they were engaged by himself subject to that condition, and the said President, shall in all cases when by him deemed proper, have the right to act, through agents of his own, acting under written orders, relating to any and all particulars pertaining to the branches of Railroad service within the purview of this Contract.”

“ARTICLE 9. In case the parties of the first part should fail in any particular to fulfil in a manner satisfactory to the said President, every engagement hereby contracted by them, and should such failure continue after the same shall have been notified and specified to them and they shall have been required by the said President to perform such service in the manner directed by him, then, in such case, the said President shall have the right to cause the same to be performed by persons specially employed by him for that purpose, and the just and proper expense thereof shall be charged to the said parties of the first

part. In case of such failure on the part of the said parties of the first part, the said President shall have the right to annul and cancel this Contract, at any time, on giving one month's notice, to the said parties of the first part. Such notice to have the force and effect of absolutely putting an end to this Contract one month after the delivery thereof, and this, without any prejudice in any way to any right which the said party of the second part may have to be indemnified by the said parties of the first part, for any loss or damage, by it sustained in consequence of such failure on the part of the said parties of the first part to fulfil their engagements."

"ARTICLE 10. Should the parties to this Contract hereafter agree to renew the same, with or without modifications, an expression of such agreement under their signatures, shall suffice for such renewal and shall have the same force and efficacy as a new Contract would have."

"In witness whereof the parties hereto have set their hands and seals on the day and year aforesaid."

The above extracts give but a mere skeleton of the contract, which from its very nature must always go very much into detail and vary very much according to circumstances; but they present enough to make the *principle* that underlies the contract intelligible to railroad managers.

The basis for such an arrangement could ordinarily be easily arrived at. If the average earnings of a road, for instance, for five years have been \$100,000 per year, and its operating expenses \$65,000—upon an average carriage of *a a* passengers per year, and an average *b b* tons of freight—then the parties of the first part agree to operate the road at their own expense, in consideration of stipulated salaries and wages and a percentage of the profits in excess of the average for the five years, and for a percentage upon the passengers carried in excess of the said average *a a*, and of the freight in excess of said average *b b*.

DEAD HEADS.

Another mode of procuring additional profit to railroads, would be to suspend the practice of granting free passes, which has come to be recognized by railroad managers as not only a wrong in itself, but productive of wide-spreading and cumulative evil results. Almost every free pass becomes a productive branch through which many more of the same sort spring, while comparatively few of them produce a profitable return to the corporations issuing them. The crop is abundant, the harvest sure; but the fruit is

neither nourishing nor wholesome to the body corporate. It is well named *Dead-head*.

The practice has attained a magnitude which not only challenges attention, but excites anxious apprehension and already seriously affects the receipts and business interests of railroad companies. The co-operative action of railroad managers, if carried into effect in good faith with each other, would readily put a quietus upon the practice, without risk of disturbance to any business relation; which all admit should always be purely one of equivalents—and the reproachful epithets recklessly cast at any one road, that, assuming independent action in self defence, decisively refuses to accede to the frequent demand for a free pass, would lose all seeming, as they now possess no real, force or justification.

Mr. Felt,* in his startling cry for reform in this practice, says: "There are many who receive a free pass who give more than its value in return; but they are the exceptions, and not the rule. The system now is one of rapine and plunder. A railway manager finds that much of his time is consumed in considering these applications in all the varied forms in which the sharpest self-interest can present them. Hundreds can find some excuse for asking for a free pass; and can fortify their applications in a way that makes it quite impossible for a manager to discriminate justly and fully between genuine cases and impostures."

Mr. Felt then proceeds to "divide the dead-heads off into orders and genera," in a systematic arrangement, and after the enumeration of eighty-six different classes of persons who ride on railroads without paying fare, continues thus:

"We do not pretend that this classification is as exhaustive and scientific as if made up by officials of a census bureau; and yet it may do for present purposes. And the first impression is, If all these people get free passes, who is there left to pay? If we carefully examine the above list, we shall find that it includes nearly every one of those persons best able to pay for what they have. In England it has been found that the railways are supported by the third-class passengers, who are packed in great numbers into dirty cars at low fares; while the first and second class compartments are so little used, that, though their occupants pay much higher rates for better accommodation, they yield no actual revenue. It is the masses that must support every public undertak-

* No. 1 of a series of papers upon "*Dead Heads, or who ride free on the Railroads,*" by Chas. W. Felt, Ayer, Mass., price 10 cts. each.

ing; but it is curious, that both in England and America, the so-called 'better classes' have succeeded in throwing the support of the railways upon the already well-burdened backs of the working classes, using this term in its widest and best sense."

And Mr. Felt concludes as follows: "This is an abuse very hard to cut off. It can only be done by one general movement, perhaps by all the railroad managers in concert: perhaps it will require a law of the State, or even need to be incorporated, as in Pennsylvania, into the organic law. But something must be done to prevent the perpetual asking for favors of this kind; for in many cases (such is the intimate connection of the parties), if they are asked, they must be granted. It must be understood that the right to use railways free is no longer to be had for the asking, and that it is quite as improper to ask it as it would be to ask lodgings in a private house. People to-day are taking free passes, who would scorn to do such a thing, were it not that they are impelled to do so by a custom which has grown gradually, and now places all concerned in a false position; and the only retreat from it is a total abolition of the custom."

As an indication of a general awakening to a reasonable view of this subject, we append the following circular letter received by one of our railway superintendents:

OFFICE OF RAND, AVERY & Co., }
BOSTON, DEC. 20, 1875. }

Dear Sir:—The fact that we have been acknowledged in over fifty instances, as proper recipients of the courtesy of an Annual Pass during the past year, causes us to hesitate in our proposed step. But after due consideration of all the phases of the subject, we have decided, this year, to solicit no more favors of this kind, either as Railroad Printers, or as publishers of the *PATHFINDER RAILWAY GUIDE*.

We do this in no ungracious spirit, for we are glad to recognize the hearty interest manifested by Railway Officials in our Railway Publications, upon which the public depend for prompt and accurate information, and in particular are we indebted for the oft-repeated courtesies extended to us and our employees.

It is, simply, that we have learned to recognize the growing evils of the pass system, and therefore wish, *for our own satisfaction*, to occupy an independent position as regards either business or pleasure.

Trusting that our action may not be unfavorably construed, but believing, on the contrary, that you will hail with us the day when the practice will be *a ride for a fare and a fare for a ride*.

We remain, your ob't servants,

RAND, AVERY & Co.

While the two classes of corporations—banks and railroads—are alike created by the State for purposes of public benefit, and are equally under the control of legislative enactment, the former only are required to make such a periodical statement as will exhibit their true financial condition, and it would seem that no good reason exists for this distinction.

The soundness of the bank appears to affect more directly the interest of the people at large; its promises to pay are daily circulating from hand to hand. The industrial classes look to it as the safe depository where their surplus means may be left in security until the hour of need, and as the source of relief in case of temporary pressure. Hence, all have recognized the propriety of exacting from banks a minute and precise statement of their affairs, so that all may judge for themselves as to their security. But do not equally cogent reasons exist for requiring from railroads a similarly clear and intelligible financial statement?

However it may have been in the past, the railroad of to-day is too commonly regarded, from its inception, as a benefit more or less direct, that may be secured by the sacrifice of a small amount subscribed to its capital stock, which is viewed merely as a nucleus about which to accumulate the real fund for construction, derived from the future sale of obligations to be issued as purchasers may be found willing to invest, in the hope of realizing the permanent and satisfactory income promised. The ownership, however, remains vested in the shareholders, and consequently the management of the affairs of the corporation. But it is too often the case that having secured their primary object, the building of the railroad that in its influence upon the material welfare of the community has amply repaid them for their investment, they become indifferent to the future welfare of the road and to the trust they have assumed in behalf of those whose means have most largely contributed to the successful issue of the undertaking, but who are excluded from all management of the affairs of the corporation.

The stockholders meet annually, and consider their duty accomplished when they have personally, or more frequently by proxy, listened to the reading of a report and elected the prescribed number of directors for the ensuing year. They are generally careful, it is true, to select the ablest men and those of approved integrity, and then adjourn with a consciousness of having well performed their duty. But is there not a dangerous fallacy here involved? The business man whose close application and attention to his own affairs has earned him the respect and confidence of his fellow citizens, can scarcely be expected when elected to the barren honor of a directorship in a railroad corporation, wherein his pecuniary interest is small, to reverse the whole tenor of his life and sacrifice his more important for this lesser interest. If the elected director devotes his leisure time—and he is often called upon for far more—to the consideration of questions of urgent and paramount importance, is it not all that can be reasonably expected of him? Few but those practically acquainted with the management of a railroad, know of the multiform ramifications of its operation, nor how almost impossible it is without long study and experience to thoroughly comprehend and master the detail involved in its *successful* management. Hence, while these directors may bring ability and integrity to the execution of their duties, it is unreasonable to require that he shall intuitively know just where to direct his attention to discover a suspected flaw in the complicated machinery which is perhaps for the first time presented to his consideration.

Comparing, then, the simple functions of a bank with the more complex ones of a railroad, its manifold sources of income, its still more numerous and diversified items of maintenance and operating expenses, which too often absorb its revenue, and considering how intimately the railway system affects the welfare of the State; yet how few are sufficiently familiar with the practical working of railroads to judge from the annual statements made by these corporations of their real condition; it seems to be especially important that these returns should exhibit not only the usual statistical information, but also present in a plain and concise manner their resources and liabilities.

The growing importance of the railroad interest, its magnitude and intimate connection with the general welfare of the country, has led to the establishment by most of the States, of Boards of Railroad Commissioners. Year after year, these Boards are accu-

mulating statistics and information, which compiled and embodied in their annual reports *should* become valuable alike to the railroads and communities, as affording a ready means of comparing one road with another. It is therefore important that the powers of the Board should be sufficient to enable them not only to demand from railroad corporations the information required by statute law, but also the time and manner of its being rendered, and such additional items as the experience of the Commissioners shall lead them to believe expedient to call for. The more detailed and complete the returns are made the better, and the more strictly obedience to the calls of the Commissioners for information is enforced, the better for the welfare of the roads, their stockholders and their creditors. The improved system which must obtain in the different departments of a railroad to enable it to respond *clearly* and *satisfactorily* to proper demands for information; the deeper insight into their own affairs which the managers of railroads will possess through the elucidation of the facts demanded by the Commissioners, would compensate any corporation—it is believed—for the additional expense such researches might involve. And last, though not least, the pecuniary interest of some corporations would be enhanced by raising the veil which so commonly hides the real condition of these powerful yet dependent concerns and revealing to capitalists such facts as would remove the prevailing distrust and induce confidence in railroad investments.

Complaint has at times been made by railroads interested, and at other times by individuals taking stock with a view to opening new roads, of the manner now provided by statute for the assessment of damages for land taken by the location of railroads or for depot grounds. It is alleged that the present mode is expensive, attended with delays, and very far from uniform in its appraisal of lands of like value and situation. It has, therefore, been suggested, that if the assessment of damages were imposed upon the Railroad Commissioners as in some other States, the mode of procedure might be simpler and more direct, with greater probability of uniformity in the appraisal and with less liability to local influences than as now, when the members of the court, or jury to decide reside in the immediate vicinity of the land taken or of the parties litigant. The subject may be worthy the consideration of the Legislature.

