



365. 10/2/31

# REPORT

TO THE

# STOCKHOLDERS

OF THE

# UNION PACIFIC

RAILROAD.

FOR THE YEAR 1873.

BOSTON:
PRINTED FOR THE COMPANY.
1874.

## UNION PACIFIC HISTORICAL MUSEUM

# REPORT.

To the Stockholders of the Union Pacific Railroad Co.

The Board of Directors submit the following report for the year ending December 31, 1873:

The business of the road shows a gratifying increase over the preceding year, both in passenger and freight transportation.

The gross earnings for the year were \$10,266,103.66.

The operating expenses, - - - 4,974,861.02

The net earnings, - - - - \$5,291,242.64

Compared with the year previous, there has been an increase in gross earnings of \$1,373,498.13, being 15,44 per cent., an increase of operating expenses of \$174,287.54, and an increase of net earnings of \$1,199,210.59.

The ratio of expenses to net earnings has been decreased from  $53\frac{98}{100}$  per cent., to  $48\frac{46}{100}$  per cent.

The passenger earnings amounted to \$3,887,204.48; increase over the year previous, \$516,892.07, or a gain of 15700 per cent.

The following is a statement of the number of through and of way passengers, and of passengers carried one mile during the year:

Number of through passengers,	-	75,960
Number of way passengers,	-	98,934
Total number of passengers carried		2 .501
one mile,	95,	709,054

Compared with the year previous, there has been an increase of 9,206 in the total number of passengers, or  $5_{100}^{26}$  per cent., and of 15,045,183 passengers carried one mile, or  $18_{100}^{65}$  per cent.

The average rate per mile received from passengers was 4.06 cents, or  $\frac{12}{100}$  of a cent less per mile than was paid the year previous.

The freight earnings amounted to \$5,516,907.68. Increase over the year previous, \$748,488.51, or a gain of 151% per cent.

The following is a statement of the number of tons of through and of local commercial freight carried one mile:

Through freight, east bound, tons, Through freight, west bound, "		-	35,648,446 61,642,901
Total, tons,		-	97,291,347
Local freight, east bound, tons,	-	-	53,707,443
Local freight, west bound, " -	-		72,362,752
Total, tons,	-	-	126,070,195

The increase over the year previous, in through freight, east bound, was  $14_{10}^{4}$  per cent., and west bound, was  $17_{10}^{3}$  per cent. In local freight the increase in east bound was  $85_{10}^{4}$  per cent., and west bound was  $10_{10}^{5}$  per cent. The average of total increase was  $25_{10}^{4}$  per cent.

The average rate per ton, per mile, of all freight transported over the road during the year, was 2.17 cents, or a decrease in rates of  $\frac{17}{100}$  of one cent per ton per mile from the year previous.

In the operating expenses for the year 1873 is included the cost of new rails for 60 miles of track, and of new cross ties for 280 miles. Included also are the expenditures of \$25,000 for filling trestle bridges with earth embankment, \$74,000 for raising track to avoid obstructions from snow, and \$222,000 paid for taxes.

The construction expenses for the year amounted to \$123,-060.13, which were incurred principally for rolling stock, the erection of snow sheds and fences, and of buildings at Omaha for passenger depot and company's offices.

There were two accidents to passengers during the year, one of which resulted in death, and was caused by a passenger attempting to get on to a moving train. The other was a slight personal injury, that was settled for on the payment of \$25 by the company.

The running of trains has been conducted with great regularity. During the year very few connections at either end of the road have been missed. From Nov. 1, 1873, to March 1, 1874, the passenger trains on the Union Pacific Railroad did not fail in a single instance to connect with the Central Pacific trains on the west end, and the trains of the Iowa roads on the east.

The measures adopted to avoid snow blockades on that part of the line which crosses the Rocky Mountains have been very effective. Numerous small cuttings have been widened, and 29\frac{3}{4} miles of track have been raised an average of three feet. Seven deep cuts have also been widened, by the use of steam shovels, thereby dispensing with 11 miles of snow fence.

The road-way, track, cars, locomotives, and buildings are in

good order. The report of the government directors to the Secretary of the Interior, dated Dec. 1, 1873, states as follows:

"In our report for 1872 we remarked, concerning the road, that 'probably no equal number of consecutive miles of railway in the United States can be found in better condition.' The road this year is in better condition, in many respects, than it was then."

The problem of a pure water supply for locomotive use through the Bitter Creek country has been satisfactorily solved, by the success of the seven artesian wells which were bored on the line of the road between Rawlins and Green river. In every instance an abundance of water was obtained, at depths varying from 300 to 1100 feet.

To provide for the business of the present year, an increase in the rolling stock will be necessary. Ten new locomotives, weighing thirty-eight tons each, are under contract, to be delivered this season. Two hundred box cars and two hundred coal cars are ordered to be built at the works of the company at Omaha; and there will be required at least twelve additional passenger coaches. With these additions to the present equipment, the capacity of the rolling stock will be adequate to a business of \$12,000,000 per annum. No addition will be required the present year to the car-shops and round-houses, or to the tools and stationary machinery.

Work was commenced on the passenger depot and fire-proof building for the company's offices at Omaha in October last, the total expenditure therefor, up to January 1, 1874, having been \$38,962.73. The completion of these buildings this year is deemed desirable for the proper accommodation of the passenger travel, and for the preservation of the valuable papers of the company. A freight depot should also be built on the upper depot grounds of the company at Omaha, for the concentration of all freight business arriving at or going from

Omaha by the Union Pacific Railroad. The freight buildings now in use are rented only, are inconvenient in location, and the tracks thereto are inundated at high water. To provide adequate room in the near future for the passenger and freight business of the road at Omaha, it is now evident that additional grounds should be secured. The tract of land between the present depot grounds and the north side of Marcy street, north of Tenth street, is favorably located for the desired uses, and would offer ample room.

It is deemed important to complete this year the filling up of all high trestle bridges on the western division of the road, by taking the material required for this purpose from adjacent cuts. The additional width secured will render it unnecessary to maintain six snow sheds now built. Three steam shovels are now engaged in this work, and at the present rate of progress, all the high trestle bridges will be filled up by the 1st of November next. The cost of watching and of repairing these bridges, which in the aggregate are 4,000 feet long, and average 35 feet high, has added a very considerable sum annually to the operating expenses, that will thereafter be saved.

During the year 1874 it will be necessary, in order to maintain the track in thoroughly good condition, to lay down at least 100 miles of new or rerolled rails. The economy in using steel in the place of iron rails on all railroads having a tonnage as large as the Union Pacific, is established beyond all question. The increased cost of steel rails at present is \$3,150 per mile. Should it be impracticable to procure steel for all the rails requiring renewal this year, at least 2,000 tons should be obtained for portions of the mountain grades of the road where the heaviest locomotives are used, and where the life of the rails is shortest.

The cost of transporting worn-out rails to the nearest rolling-

mill, added to the cost of returning the rerolled rails, amounts to \$20 per ton. The erection of a rolling-mill at some favorable point on the line of the road, would save three fourths of this transportation, which in two years would pay the cost of the mill. There are several points on the road deemed suitaable for the location of a furnace and rolling-mill, on account of the abundance of water-power, proximity to coal, and to iron ores and limestone.

The increase of 18 per cent, in passenger mileage, and of  $25\frac{4}{10}$  per cent, in tonnage during the past year over the year preceding, was the result of the development of interests which are permanent, and increasing in importance. The coal traffic has increased for the last two years at the average rate of 41 per cent, per annum, and must continue to increase rapidly.

The transportation of bullion and of silver ore has increased for the last year over the year previous at the rate of 53 per cent. and 154 per cent. respectively. On hay, the increase was 70 per cent., and on merchandise 14 per cent. On coffee, wool, and fresh fruit,—the products of the Pacific coast,—the increase was 87 per cent., 28 per cent., and 33 per cent., respectively.

In addition, there are interests, as yet undeveloped, of great importance, which at an early day will contribute largely to the traffic of the road. One of the most important of these is iron ore, which is found in large quantities at various points near the line of railroad for a length of five hundred miles. Repeated analyses show that the ore will flux readily, and is adapted to the manufacture of Bessemer steel, yielding in some instances 67 per cent. of iron. An inexhaustible supply of soda has been found near the line of road, that can be delivered on the Atlantic coast at prices to exclude the soda of importation, of which, during the year 1872, there were brought into this country 118,000 tons, valued at over \$5,000,000. There

appears no reason why, at an early day, the imported article should not be wholly excluded by the supply from the line of the Union Pacific Railroad.

By a recent discovery, it has been ascertained that where the railroad crosses Green river there is to be found an oil-bearing shale, similar in all respects to the shales of Scotland, from which were manufactured last year in that country over 30,000,000 gallons of oil. The Green river shale is found in strata forty feet thick, above water level, and extends over a large area. Scientists and oil manufacturers, who have fully investigated the subject, agree in the opinion that lubricating and burning oils can'be made from this shale at a cost not exceeding fifteen cents per gallon. When it is considered that this oil may be delivered at any point in the country east of the Rocky Mountains at a price to compete with the lubricating oils of West Virginia, and that for the supply of lubricating and burning oils for the Pacific coast it will control the market, the importance of this discovery to the interests of the Union Pacific Railroad will readily be appreciated.

A discovery of sulphur has been made at a point thirty miles south of the railroad, in Utah territory. The deposit covers an area of over thirty acres, is of great depth, and is apparently inexhaustible. Being 85 per cent. pure sulphur, it is the richest deposit of the kind in the known world. Last year 25,000 tons of sulphur were imported into this country, and sold at a price which would warrant the transportation of this sulphur to the Atlantic coast in competition, while for all interior points in the country it will command the market, and pay liberal rates to the Union Pacific Railroad for transportation. Other valuable minerals, extensively used in the mechanic arts, have been found near the line of railroad in extraordinary purity. Among these are plumbago, the sulphate of alumina, and the per oxide of manganese, 95 per cent. pure.

The establishment of additional lines of steamships between San Francisco and the trans-Pacific ports; the increasing commerce and travel between California and the East; the rapid development of the mining and manufacturing interests of Utah; the completion of the Colorado Central Railroad, which will yield a traffic to the Union Pacific Railroad of not less than \$700,000 per annum; and the steady growth in population and productiveness of the country along the line of the road, give assurance that the estimate of earnings of the road for 1874 is not overstated.

By order of the Board:

E. H. ROLLINS, Secretary. JOHN DUFF, Vice-President.

Boston, March 10, 1874.

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UNION PACIFIC
HISTORICAL MUSEUM

Statement of Earnings and Expenses for Calendar Year

of 1873.

II

Operating Expenses.  \$351,567.20 289,028.42	Net Earnings. \$172,407.66
	\$172,407.66
	202,755.13
330,800.10	377,456.43
0.0	407,187.54
	517,509.04
	552,745.64
	439,651.37
	436,330.93
	567,098.12
00	
0.06	
	\$5,222,891.30
	(0
\$4,974,861.02	\$5,291,242.64
	474,078.84 490,322.23 417,118.04 437,182.02 400,947.36 501,838.54 41 594,763.67 438,087.08 29 317,478.86 66 \$5,043,212.36 68,351.34

# CLASSIFICATION OF EARNINGS.

1873.	Passenger.	Freight.	Express.	Mail.	Miscellan's.	Total.
Tanuary	\$137,455.52	\$324,419.35	\$29,884.78	\$23,654.59	\$8,560.62	\$523,974.86
February	137,037.75	291,622.81	27,344.34	23,654.58	12,124.07	491,783.55
March	276,761.54	361,155.88	37,971.93	23,654.58	8,712.60	708,250.53
April	265.762.33	441,409.73	32,373.78	23,654.59	18,065.95	881,200.38
May	442,082.32	479,621.92	38.750.38	23,654.58	21,822.07	1,007,831.27
Tune	471.282.06	421.055.80	36,411.06	23,654.58	17,460.18	969,863.68
July	330,102,32	476.171.94	35,107.95	23,654.58	09.962,11	876,833.39
August	310.051.13	448,302.65	36,144.03	23,654.59	19,125.89	837,278.29
September	387.727.30	609,180.27	33,099.23	23,654.58	15,275.28	1,068,936.56
October	429.652.04	674,809.46	33,633.96	23,654.59	8,836.36	1,170,586.41
November	366,452.09	528,013.82	37,827.56	23,654.58	14,712.30	970,660.35
December	230,938.08	461,143.95	31,641.76	23,654,58	11,453.92	758,832.29
Total	\$2.887.204.48	\$5.516,907.58	\$410,190.76	\$283,855.00	\$167,945.84	\$3.887,204.48 \$5.516,907.58 \$410,190.76 \$283,855.00 \$167,945.84 \$10.266,103.66

Compared with the previous year, there has been during 1873 an increase of passenger earnings of \$516,892.07, or 15.34 per cent; an increase in freight earnings of \$748,488.51, or 15.7 per cent.; an increase in express earnings of \$73,857.41, or 21,100 per cent.; and an increase in miscellaneous earnings of \$34,260.14, or 25,16,2 per cent.

Comparative Statement of Passenger Earnings for 1872 and 1873.

	1872.	1873.	Increase.	Decrease.
January,	\$114,470.93	\$137,455.52	\$22,984.59	
February,	74,451.17	137,037.75	62,586.58	
March,	201,484.34	276,761.54	75,277.20	
April,	309,458.30	365,762.33	56,304.03	
May,	372,779.94	443,982.32	71,202.38	
June,	343,741.05	471,282.06	127,541.01	
July,	275,816.53	330,102.32	54,285.79	
August,	316,611.49	310,051.13		\$6,560.3
September,	357,185.84	387,727.30	30,541.46	
October,	392,226.69	429,652.04	37,425.35	
November,	384,523.45	366,452.09		18,071.3
December,	227,562.68	230,938.08	3,375.40	
Total,	\$3,370,312.41	\$3,887,204.48	\$541,523.79	\$24,631.7
	ase 1873 over	The second secon	\$516,892.07	

Per centage of gain, 1534.

The passenger revenue derived from military travel in 1873 shows a falling off from that of 1872 of \$55,036.24. The earnings from commercial travel, therefore, for 1873, exceeded those of 1872 by the sum of \$571,928.31, being an increase of 18164 per cent.

TABLE, number of Way and Through Passengers carried, and number carried one mile during the year 1873.

			Way carried	Through	Through	Through carried	Total No.	Total number
	Way East.	Way West.	one mile.	East.	West.	one mile.	Passengers.	carried one mile.
Tannary	2.802	2.102	1.028.212	1.065	1,314	2,455,128	8,373	4,383,340
T. L	-,,,,,	000	1920,000	022	1 781	1 405 710	8 683	3,546,071
repruary	2,021	3,430	2,050,352	03/	1,1,0/	67/1041	090.	1 308 560
March	3,578	5,642	1,678,080	1,568	4,072	5,820,480	14,800	7,490,500
April	3.487	2.680	1.546.253	2,301	6,042	8,609,976	17,510	10,150,229
May	1.180	6217	2075.856	2.751	6,130	9,165,192	19,278	11,241,048
Imp	1,1	191	1 177 777	2 578	1.256	7.155.888	15,253	8,288,111
June	3,534	4,01	1,132,223	2,070	100	8 -67 664	17 124	0.773.507
July	3,991	4,841	1,205,933	2,447	5,055	400,100,0	+01,17	16000116
August	3,913	4,928	106,767,1	2,450	3,220	5,857,032	14,517	7,055,533
September	4.582	5,152	1.789.484	2,989	4,933	8,175,504	17,656	9,904,988
October	2 072	0001	1.250.750	2.782	5,628	8,679,120	17,473	6,626,879
Monophon	0,610	1000	101671	1,625	F.102	6.053.616	13.445	7,970,360
November	3,300	3.40	1,010,/44	1,033	0,100	4 7 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2011	F 201 228
December	3,054	3,547	1,058,780	1,524	7,207	4,444,554	10,/12	3,301,330
Total	42.033	55.00I	18.530.583	24.933	51,027	77,178,471	174,894	95,709,054
1872	46.527	50.525	10,115,519	22,794	36,842	61,548,352	165,688	80,663,871
1 088	2 404	2624	-81 026					
Coin	5,474	17000	204,432	2 120	14.185	15.630.110	0.206	15,045,183
Calli				40 -12	- 11	1 -0 - 10	1	

travellers take advantage of the difference between local and through rates by purchasing through tickets and selling them with the coupons not used, after reaching their destination. By this means a considerable portion of the local travel becomes credited to through travel. The actual increase of mileage of passenger travel for the past year over the year 1872 amounts to 18 100 per cent. The above statement shows an increase in mileage over the year 1872 of  $25_{100}^{19}$  per cent. on through travel, and a loss of  $3_{100}^{16}$  per cent. in way travel. This loss is apparent only, however, there having been an actual aggregate increase, notwithstanding the Colorado travel over this road has for several years been gradually falling off, owing to the arbitrary rates charged by the Denver Pacific Railroad. The apparent loss on way travel arises mainly from the fact that many

Comparative Statement of Freight Earnings for the Years 1872 and 1873.

	10/2	2 ana 1873.		
Month.	1872.	1873.	Increase.	Decrease.
January	\$94,907.67	\$324,419.35	\$229,511.68	3
February	417,953.94	291,622.81		\$126,331.13
March	300,721.61	361,155.88	60,434.27	
April	371,702.66	441,409.73	69,707.07	
Мау	452,754.61	479,621.92	26,867.31	
June	424,665.70	421,055.80		3,609.90
July	404,803.81	476,171.94	71,368.13	
August	411,923.09	448,302.65	36,379.56	
September	440,367.44	609,180.27	168,812.83	
October	531,053.65	674,809.46	143,755.81	
November	456,832.10	528,013.82	71,181.72	
December	460,732.79	461,143.95	411.16	
Total	\$4,768,419.07	\$5,516,907.58	\$878,429.54	\$129,941.03
Net increase			\$748,488.51	

### FREIGHT TRANSPORTATION.

Table showing the number of tons of Through and Local Commercial Freight carried one mile during each month of the year 1873.

3 10			
1873.	Through.	Local.	Total.
January	5,776,280	7,030,117	12,806,397
February	5,684,660	5,232,626	10,917,286
March	6,341,570	7,709,521	14,051,091
April	7,890,197	11,373,596	19,263,793
May	9,574,428	11,448,796	21,023,224
June	7,892,197	10,442,430	18,334,627
July	8,930,223	10,131,972	19,062,195
August	9,388,620	10,778,044	20,166,664
September	9,836,566	14,305,864	24,142,430
October	9,648,554	15,546,100	25,194,654
November	8,092,675	12,695,086	20,787,761
December	8,235,377	9,376,043	17,611,420
Total	97,291,347	126,070,195	223,361,542
Total, 1872,	83,693,025	94,452,730	178,145,755
Increase,	13,598,322	31,617,465	45,215,787

### AVERAGE RATE PER TON PER MILE.

•		1873	1872
	West bound	\$2.45	\$2.57
Through	East bound	1.97	1.88
	Average	2.27	2.32
-	West bound	2.56	2.64
Local	East bound	1.49	1.72
	Average	2.10	2.36
	West bound	2.51	2.61
Total	East bound	1.68	1.80
	Average	2.17	2.34

### TOTAL FREIGHT EARNINGS.

From	1873	1872	Increase.
Commercial	\$4,806,620.85	\$4,166,993.76	\$639,627.09
Government	219,939.65	170,158.06	49,781.59
Company			59,079.83
Total	\$5,516,907.58	\$4,768,419.07	\$748,488.51

Per centage of increase on Commercial, 1513; on Government, 2913; on Company, 1313;—total, 15170.

Statement showing number of tons of Government Freight carried one mile during each month of the year 1873.

Month.	Tons one mile.
January	500,374
February	307,633
March	196,165
April	450,566
May	479,108
June	559,020
July	751,941
August	445,429
	528,527
September	1,217,502
October	653,474
November  December	780,823
Total	6,870,562
Total—1872	4,623,357
Increase	2,247,205

Classified Statement of Freight transported during the year 1873.

Merchandise,	186,504,300	pounds.
Hay	2,738	tons.
Coal	192,028	tons.
Wood	5,612	cords.
Stone	1,289	tons.
Silver ore	18,062	tons.
Bullion	17,781	tons.
Lime	27,947	bushels.
Machinery	10,778,214	pounds.
Railroad iron	15,207,440	pounds.
Manufactured iron	3,472,347	pounds.
Lumber	15,673,799	feet.
Timber	134,804	feet.
Horses and mules	5,071	head.
Cattle	16,025	head.
Sheep	8,878	head.
Hogs	16,030	head.
Hides	1,833,133	pounds.
Wheat and barley	968,614	bushels.
Corn and oats	872,585	bushels.
Flax seed	18,438	bushels.
Potatoes	65,829	bushels.
FlourHops	49,730	barrels.
Furs	530,186	pounds.
Silk	1,754,405	pounds.
Coffee	885,395 3,828,047	pounds.
Tea	12,658,386	pounds.
Wine		pounds.
Wine	1,953 5,868	cases.
Cotton		
*** .	195,543	pounds.
Leather	1,692,538	pounds.
Fresh fruit	3,604,617	pounds.
Apples	4,677	barrels.
Salt	4,782	
Fresh beef		barrels.
		pounds.
Coke	15,205,212	pounds.
Pig lead.	7,656	tons.
~ S Icau	2,877	tons.
Total weight for sers	71.06-	
Total weight for 1873,	74,907,927	pounds.
7. Weight for 1872,7	57,300,143	pounds.
Increase for 1873.	17.667 784	nounde

Shipment of Coal during the years 1871, 1872, and 1873.

	1871—tons.	1872—tons.	1873—tons.	Total tons.
Company	86,966 91,851	137,741	192,028	416,735 359,894
Total	178,818	271,147	326,664	776,629

STATEMENT OF EARNINGS AND OPERATING EXPENSES IN 1870, 1871, 1872, AND 1873.

EARNINGS.	1870.	1871.	1872.	1873.
Commercial Passenger	\$3,528,857.68	\$2,895,606.38	\$3,067,158.29	\$3,639,086.60
Government Passenger	289,769.92	227,903.70	303,154.12	248,117.88
Commercial Freight	2,360,292.69	3,062,968.35	4,166,993.76	4,806,620.85
Government Freight	263,219.95	213,585.15	170,158.06	219,939.65
Company Freight	435,002.55	352,935.44	431,267.25	490,347.08
United States Mail	274,513.56	283,748.80	283,855.00	283,855.00
Express	281,691.76	307,731.32	336,333.35	410,190.76
Car Service	62,913.49	57,459.13	3,959.36	16,281.73
Miscellaneous	108,288.32	103,934.38	112,612.80	135,392.51
Rents	20,727.19	15,809.51	17,113.54	16,271.60
Total Earnings	\$7,625,277.11	\$7,521,682.16	\$8,892,605.53	\$10,266,103.66

