the prestige and character of service on these trains, and entered into an agreement with the Pullman Company to furnish new and modern equipment for these trains similar to contracts the sleeping car company had with the road's competitors. By the terms of this agreement the Pullman Company agreed to maintain the cars and supervise the conduct of its employees. The receivers estimated a saving in respect of the care and repairs of the cars, inspection, wages, etc. of approximately $280,000 a year and that with the advantage of the new equipment they would receive as much, or greater, net earnings as they would have received under the former arrangement without incurring the cost of the equipment. Another advantage was to be the furnishing of additional equipment on special occasions of increased travel. The road's old equipment was only sufficient to normal needs. The old sleeping cars on these trains were used to replace the wooden cars in service on other trains which it was necessary soon to replace or rebuild at considerable cost.[1]

The receivers inaugurated the operation of roller-bearing trains. The new cars furnished by the Pullman Company for use on the road's two principal trains each weighed approximately 12,000 pounds more than cars formerly in service due in part to the interior construction of steel instead of wood. Owing to the additional weight and greater consumption of steam for heating, the receivers were faced with the alternative of either using

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1. Railway Review, July 3, 1926, p. 33.

heavier power by purchasing new locomotives or else reducing the train resistance by applying roller bearings to the new Pullman cars and continuing in service the same power formerly used. The receivers chose the latter and not only caused the roller bearings to be applied to the new sleeping cars but to the other cars on these trains. The receivers estimated that the savings effected by reduced train resistance due to the roller bearings making the purchase of new locomotives unnecessary together with the reduction and consumption of fuel and lubricants would be sufficient to pay for the roller bearings in slightly more than two years. Incidently, only one seventh of the tractive effort to start and stop the old trains was now needed to start and stop the new trains.[1]

The receivers brought about a connection with Yellowstone Park. This park, situated in the northwest corner of Wyoming and a considerable distance south of the road's main line had not been available for solicitation of passenger business by the receivers because of the lack of arrangements by the stage route or other routes for transporting passengers to and from the park. For many years the Northern Pacific, Union Pacific, and Burlington, competitors, had such facilities to handle the increasing tourist business. During 1926 the receivers made arrangements to open a highway route between Three Forks, Montana, and the West Yellowstone entrance to the Park, approximately 117 miles. Nearly 1,500

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1. Chronicle, vol.124, p.3625.

passengers were transported in and out of the park by the receivers during the 1926 season. To further develop this traffic the receivers during the early part of 1927 reconditioned the branch line running southerly from Three Forks, Montana, to Gallatin Gateway, formerly Salesville, Montana, approximately 32 miles, built a combined hotel and station facilities at Gallatin Gateway including terminal facilities, and on June 17, 1927 opened the new route to Gallatin Gateway by rail and to the Park, via the Gallatin Canyon, by motor coach. By providing rail transportation the route was shortened through an uninteresting country from a scenic point of view and a better division of the revenue made with the motor coach line. The route was extensively advertised by the receivers. During the 1927 season over 5,000 passengers travelled over the route. In addition to revenue gained from this new business the road was now able to compete with other carriers for coast travel where the passengers might desire to make a side trip to the park.[1]

The receivers improved the road's telephone and telegraph facilities. These facilities had become inadequate and inferior to those of competitors. These improvements were made to facilitate the movement of trains, secure greater safety, and reduce the expense of dispatching. It was estimated that these improvements would save in annual payroll about $30,000 by the

1. Railway Review, July 24, 1926. Chronicle, vol.124, p.3625.

elimination of many relay operators.

The receivers in 1925 and 1926 increased the advertising appropriation. In 1927 they decided to make the road's advertising activities more definite. An advertising firm was employed to plan a 1927 campaign. Several representatives of this firm were sent over the road. They obtained first hand information from people residing in the adjacent territory. The 1927 advertising took the form of regional advertising in magazines, passenger advertising in magazines and newspapers, and colonization advertising in farm journals and weekly papers. The receivers thought that regional advertising, while a departure from the usual railroad practice, was desirable because it would cement relations between the railway and the residents of the various regions thus exploited, it would increase traffic from those in other sections who might wish to travel to or establish themselves in the various sections advertised, and it would develop goodwill by showing that the railway was a progressive carrier in a country of great resources.

In 1927 the receivers electrified the section from Black River to Seattle, 14.3 miles. The former point was on the electrical line running into Tacoma. Before the line from Black River to Seattle was electrified it was necessary to change power at the former point. This form of operation was not only costly but caused delay of trains entering and leaving Seattle and Tacoma.

From March 18, 1925 to December 31, 1927 twenty six water softening plants were placed in operation at costs of approximately $10,000 each. This was at a greater rate of construction than prior to receivership. It had been the experience on the road that the savings in maintenance and operation of locomotives had paid the cost of construction of water softening plants in approximately one year. Due principally to the treatment of boiler water, the mileage of locomotives between boiler failures on the road increased during receivership from approximately 300,000 miles to 1,500,000 miles which the receivers thought was ample evidence of the wisdom in continuing the treatment of hard water. At points where soft water could be secured from the ground the receivers drilled and equipped seventeen deep wells, thereby replacing treated water.

The receivers invested liberally in new labor-saving shop, tools, and power machinery. They thought such an investment was one of high returns. The average annual cost of new tools and machinery purchased from 1922 to 1924 was $101,107. In 1925 and 1926 the costs were $219,514 and $459,554 respectively or an average for the two years of $339,534.

During this period the receivers expanded greatly the previous existing industrial department. Numerous instructors and lectures with exhibition cars were sent into the farming areas. These experts pointed out the advantages of dairy farming, improving the grade of livestock, diversification and rotation of crops, and the advantages of using power machinery.

All these expenditures were of course authorized by the court. During the receivership the commission authorized the receivers to abandon mileage on two branches in Wisconsin and on a branch in Montana.

Byram early in 1928 pointed out that one of the novel features of the receivership had been the steady improvement in the property of the road. In the thirty months ended June 30, 1927, he pointed out, that the road had piled up an especially notable list of improvements. During this time, he pointed out, it had constructed or contracted for $15,000,000 worth of rolling stock and had expended for other equipment $4,000,000; for shops and engine houses, including machinery, $1,750,000; for heavier rail and additional tracks, $4,500,000; and for other improvements of the road, $7,000,000. He pointed to the installation of roller bearings and the replacement of old equipment with new on twelve of its crack trains necessary to make up its Pioneer Limited and its transcontinental limited Olympian.[1]

In short then, the receivers seemed to be conservative in their expenditures but apparently did not hesitate to spend money where there was a good chance for a large return on the investment. As pointed out previously, the property was allowed to slide downward physically for a number of years prior to the receivership. Under the conditions, the opportunities for such investments could not be anything but numerous. Evidently the financial policy of the receivers was a progressive one. The program of additions and betterments continued to be as it had been for a number of years prévious and as it no doubt would

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1. Minneapolis Tribune, Jan. 12, 1928.

continue to be in the future, intensive rather than extensive in nature. The days of extensions into new territory were history. The days of intensive exploitation, especially the passenger business (under the receivers at least) were present.

Incidently, early in 1928 the Minneapolis city officials were negotiating with the officers of the new company concerning the elimination of certain grade crossings over the company's lines in the southern section of the city.[1] However, this problem was only in the preliminary stages of negotiation with no definite solution formulated as yet at the end of the period with which the writer is concerned in this history. The problem was one of the problems facing the new company in the near future.

The income account for the period was as follows:[2]

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1. Minneapolis Journal, Feb.2, 1928.
2. These income figures were from the corporate and receivers' accounts combined. The 1925 and 1926 figures were secured from the Chronicle, Railway & Industrial Compendium, Railway Number, May 25, 1928, p. 45; and the 1927 figures were obtained from the 1927 Statistics of Operation of the C.M. & St.P. Ry. (receivers' annual report issued in place of the former annual reports of the company to its stockholders).

CONDENSED INCOME ACCOUNT
(Figures in Thousands)
Year ended December 31

Item	1925	1926	1927
Average Miles Operated	11,205	11,193	11,209
Operating Revenues	$162,021	$160,538	$162,943
Operating Expenses	130,450	128,401	133,506
Net Revenue from Railway Operations	31,571	32,137	29,437
Taxes and Uncollectible Revenues	9,005	8,937	8,912
Railway Operating Income	22,566	23,200	20,525
Non-Operating Income	1,904	1,261	1,983
Gross Income	24,470	24,461	22,508
Deductions from Gross Income	8,955	8,165	11,570
Net Income available for Interest	15,515	16,296	10,938
Interest on Funded Debt	19,449	18,744	17,258
Net Income	*3,934	*2,446	*6,320
Dividends on Preferred-Amount	--	--	--
Dividends on Preferred-Percent	--	--	--
Dividends on Common-Amount	--	--	--
Dividends on Common-Percent	--	--	--
Total Dividends	--	--	--
Balance	*3,934	*2,448	*6,320

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In the foregoing income accounts the continuance of the old capital structure was assumed.[1]

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1. The sources of the material for this section of this chapter were the Receivers' Report, p.19; Analysis, p.9; Business Survey, February 23,1928; and Wall Street Journal, January 31, 1928. The last paragraph concerning the 1928 prospects includes material which appeared in Barron's for June 11, 1928, p.17.

These figures, as was pointed out, are from the combined corporate and receivers' accounts. During the receivership to December 31, 1927 the receivers' accounts showed total operating revenues of $453,555,608. For the same period the operating expenses were $363,393,899, and the net operating revenues were $90,161,709. Taxes aggregated approximately $24,988,000. The income from the operations of the property was sufficient to pay all interest on undisturbed obligations and meet all maintenance expenditures and expenditures for additions and betterments and other current obligations. It was not necessary to issue any receivers' notes or create new obligations with the exception of those issued for the purchase of new equipment.

Turning to the combined figures in the table the reader will note that the total operating revenues for 1926 were nearly $1,500,000 under 1925. Practically all of the shrinkage occurred in the month of December when the operating revenues for the month were $12,431,000 against $13,785,000 for 1925 and when the net income for the month was $882,000 against $2,281,000 for December, 1925. Barring this unexpected decline, due to a considerable extent to unfavorable weather for that month, the operating income would have been even farther ahead of the 1925 showing. Of the $18,744,000 interest on funded debt for 1926 shown in the table, about $14,000,000 was to remain in the reorganization. Payments at the maximum rate of 5% on the new adjustment mortgage bonds would require $9,200,000. Obviously the earnings of the company would have to increase materially in the future to enable the company to pay 5% for, as shown in the table, only $16,298,000 was available in 1926 for interest on the funded debt. In 1926 the road earned 3% on the adjustment mortgage bonds called for in the reorganization plan.

In 1927 the figures in the table show a material decline in earnings from 1926. In fact the earnings were the poorest since 1922. The poor showing of course is explained largely by the fact that during the year the receivers spent large sums on maintenance of way in order to get the property into first class condition before turning it over to the new company. The engineers early in 1925 found that rail renewals were inadequate and that ballast was deficient. They also found the shops east of Mobridge generally old and somewhat obsolete with additional facilities needed at many points. The receivers during these years were making efforts to remedy the situation. The receivers transferred to the new company a greatly improved property which was still in need of more equipment however. Furthermore, crop failures in the road's territory in 1926 was probably more severe than for any of the other principal northwest carriers. Fuel costs were high in 1927 due to contracts entered into as a result of the strike in the bituminous field. These contracts were to continue until April, 1928.

A comparison of the actual earnings for these three years with those predicted by the engineers early in 1925 may be of interest. The actual net for interest on the funded and unfunded debt (not shown in the table) for 1925 was $16,779,000; for 1926,

$18,321,000; and for 1937, $14,108,000. The engineers estimated that these amounts would be $17,850,000; $19,830,000; and $21,590,000 respectively, assuming that their recommendations were adopted. The increased depreciation rates on equipment which they recommended went into force in May, 1935. The receivers went farther than the engineers recommended in respect to expenditures for way maintenance. In fact by 1937 they were spending a much larger amount for this purpose than recommended by the engineers for 1937. They were spending what the engineers recommended should be spent in 1933 and 1934 when the latter expected the business of the road to be about 25% greater than in 1925. On the other hand equipment expenditures were substantially below the requirements in this respect estimated by the engineers. However, the road's operating statistics for the three years under review show that the company had moved longer and heavier trains faster each year than in the preceding year resulting in each year since 1934 in a decline in the proportion of total operating revenues required for transportation costs relative to that of the preceding year. For instance the gross tons per train in 1937 were 1,703 as compared with 1,523 in 1934; miles per car day, 31.4 as compared with 20.8; net tons per train, 720 as compared with 680; cars per train, 46 as compared with 43; net tons miles per train hour, 9,131 as compared with 7,810; gross ton miles per train hour, 21,364 as compared with 17,492; car miles per train hour, 581 as compared with 481; train miles per train hour, 12.5 as compared with 11.8; and miles between locomotive failures, 84,501 as compared with 80,543. Evidently expenditures in connection with the operation of the railway had also received the careful attention and study of the receivers. The actual operating ratios for 1925, 1926, and 1927 were 80.5, 80.0 and 81.9 respectively as compared with 80.4, 80.1 and 78.9 respectively as estimated by the engineers. Yet, as was pointed out above, the net available for interest during these three years was substantially less than that estimated by the engineers. The discrepancy was due largely to the failure of operating revenues to increase as rapidly as anticipated. The actual operating revenues for 1925, 1926, and 1927 were $182,021,000, $180,538,000, and $182,943,000 respectively as compared with the engineers' estimates of $185,900,000, $188,700,000, and $173,500,000 respectively. Some special factors were mentioned previously which explained in part at least the poor showing in 1927. If the estimates for 1927 had been realized, about 3 1/2% on the adjustment bonds would have been earned. Of course this rate was not even closely approached.

In short, for the three years an average of only 2% was earned on the adjustment bonds. The new company early in 1928, as pointed out previously, declared interest of 2% on these bonds, representing one third of available earnings during the preceding three years.

The prospects for 1928 were for an increase in income remaining after the payment of operating expenses and taxes.

According to the monthly reports handed in to the commission this income for the first four months was over 200% over the corresponding period of 1927. The four months figures turned in to the commission indicated a balance after fixed interest charges of 2.42% on the adjustment mortgage 5's for the four months. On a flat basis of calculation disregarding seasonal variations it is interesting to note that this would amount to 7.26% per annum. Of course part of the increase in income no doubt was due to the scaling down of maintenance expenditures to a more normal basis than that prevailing during the receivership. However, the crops in 1927 were good and no doubt had a favorable effect on the showing during these early months of 1928. Besides the fall months which are the months of largest earnings for the year were ahead. So probably the estimate of 7.26% to be earned on the adjustment mortgage 5's was conservative. The reader will recall that the new company is obliged to pay out one third of all available net up to $7,500,000 and all the available net in excess of that amount until the full 5% has been paid on these bonds. Thus if the earnings in 1928 really were to amount to 7.26% on the adjustments, the company would apparently be called upon to pay approximately 4 1/2% on the adjustments. The directors could, within their discretion, start paying the full interest of 5%. Such was the immediate outlook then in the spring of 1928, the end of the period with which the writer is concerned. The materialization of prospects for the future was to be of interest to those following the subsequent affairs of the new company. However, the predecessor of the new company is the subject of this history.

CHAPTER XIV.

CONCLUSION.

In the preceding historical account of the St. Paul down to the spring of 1928 when the property was being operated by the new company and the new securities, provided for in the plan of reorganization, were being distributed, the reader will note that very little has been said about the members of the board and of the executive management. In short very little was said about the men in whose hands rested the destinies of the road over the long period of years reviewed. In a complete account of the road which the writer has attempted to present, certainly some of these men deserve mention. A large corporation like the one under review in this history is not a lifeless thing. It is operated by persons. In many cases the problems arising in the operation of the property have been those uppermost in their minds, and the solution of these problems have sometimes taxed to the limit the abilities and experiences of some of these men. In some cases the major portion of the lives of these men have been devoted to faithful and efficient service to the road. Space forbids the mention of but a few of them.

Roswell Miller served the company for thirty years as general manager, president, and chairman of the board. He was holding the latter position when he died suddenly on January 21,

1913. He was chairman of the board when the decision was made to extend the road to the coast. He was convinced that the extension should go through in 1905. His death was a severe blow to the company. He was a financial representative in a large sense. The commission claimed that the board lacked such as a representative with sufficient information, experience, and competence to handle large financial transactions and to determine large financial policies after his death.[1]

William North Duane Winne entered the service of the company as a clerk in the accounting department fifty years before his death. After filling various intermediate positions, he was elected general auditor in 1890 and comptroller on July 1, 1910. He was holding the latter position at the time of his death on February 23, 1913. He was recognised as a very efficient official.[2]

Albert J. Earling entered the service of the company in 1866. He worked his way up through the ranks to the top. He served as telegrapher and train dispatcher for nine years, as assistant superintendent for four years; and was made division superintendent in 1883, assistant general superintendent in 1888, general superintendent in 1888, general manager in 1890, second vice-president in 1895, and president in 1899. He held the latter position until his death in 1917.[3] He, like Miller who had been the president before him, was convinced in 1905 that the extension should be built.

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1. Annual Report, 1913.
2. Ibid.
3. Who's Who in America, 1924-1925, p. 1036.

Burton Hansen entered the service of the company as assistant general solicitor in September, 1883. He became general solicitor in September, 1895, general counsel on January 1, 1911, and was elected a director on January 27, 1921. He was general counsel and a director of the road at the time of his death on August 5, 1922. He brought about a settlement of the road's claims against the United States Government for the federal control and guaranty periods which was very satisfactory to the road. He was recognized as a very able corporation lawyer.[1]

Other members of the executive management who were gone at the time of this writing might be mentioned if space permitted, as for example, Major Frank S. Bond, who served for many years as vice-president and director up to his death on February 27, 1912, and Edmund D. Sewall, who served the company in various positions and finally as vice-president from the time he entered the service of the company in January, 1883 to his death on March 30, 1923.[2]

Turning to the members of the executive management who were still living and who were in charge of affairs in the new company at the time of this writing, one will find many veterans in the service of the St. Paul.

H. E. Byram came to the St. Paul from the Burlington to serve as president after the death of Albert J. Earling, his predecessor. Ample equipment for the road had always been upper-

1. Annual Report, 1922.
2. Ibid., 1923.

most in his mind. There is not any doubt but what Byram proved himself to be one of the greatest of railway operating officials. His operating experience had been extensive. In fact it was said that he was brought in from the Burlington mostly because of his experience in this respect. He was made the federal manager in charge of operations during the period of federal control. He was one of the three receivers in charge of the property during the receivership. Upon the organization of the new company in the reorganization he was made chairman of the board.[1]

H. B. Earling, who was made the vice-president at Seattle in the new company, like Albert J. Earling, worked his way up from the telegraph key. He entered the service of the company in 1879.[2]

H. H. Field who was made general counsel in the new company had been with the company for over forty years. He proved himself to be an efficient legal representative of the new road.

There are other veterans worthy of mention. Some of them and the offices, the duties of which they assumed in the new company organized in the reorganization, are as follows: J. J. Gillick, vice-president of operations; R. J. Marony, vice-president of traffic; W. V. Wilson, comptroller; W. W. K. Sparrow, vice-president of finance and accounting; John Dickie, treasurer; T. W. Burtness, secretary (at Milwaukee), C. F. Loweth, chief engineer; and O. W. Dynes, general solicitor.[3]

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1. Milwaukee Magazine, Feb.1928,p.4. Chronicle, vol.128, p.1035.
2. Who's Who in America, 1924-1925, p.1036.
3. Chronicle, vol.128, p.1035.

H. A. Scandrett was brought in from the Union Pacific to serve as president of the new company organized in the reorganization. After receiving his law degree from the University of Minnesota he entered the service of the Union Pacific in 1901. He proved himself to be an able lawyer and his advancement to duties of greater and greater responsibility followed. He was elected president of the new company on January 11, 1928.[1]

Turning to the board of directors, one will find some who served the company long and faithfully in that capacity.

Hugh T. Dickey, in serving the company as a director and a member of the executive committee from June 7, 1879 up to the time of his death on June 2, 1892, gave much of his time and attention to the consideration of the affairs of the company.[2] The same can be said of Philip D. Armour, who served as a director from 1885 up to his death in 1901,[3] and Charles W. Harkness who served as a director for twenty years and as a member of the executive committee up to the time of his death on May 1, 1916.[4]

One of the greatest of the directors of the road was William Rockefeller. He served on the executive committee also. He took an active part in the decision of questions of policy. He was convinced in 1905 that the extension should be built. With Miller and a few others he was instrumental in bringing about its construction at that time. In fact for years it seemed that he

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1. Milwaukee Magazine, Feb.,1928,p.5. Chronicle,vol.126,p.1035.
2. Annual Report, 1892.
3. Ibid., 1901.
4. Ibid., 1916.

was the guiding force of the board. Like the Harkness family he was one of the four very heavy stockholders in the company. At one time he held as many as 150,000 shares. He died on January 24, 1922 after serving a little more than forty years as a director.[1]

Some of the directors are worthy of mention because of the time and attention they gave to the consideration of the affairs of the company just prior to the receivership relative to the possibilities of avoiding it and subsequent to the receivership in the reorganization. These are E. S. Harkness, Samuel H. Fisher, and M. N. Buckner. Incidently, Samuel H. Fisher was elected to serve as a member of the executive committee of the new company along with Scandrett, Byram and others.[2]

A very brief summary may be of interest here.

The nucleus of the St. Paul was the old LaCrosse & Milwaukee Railroad chartered in 1852. In 1860 that road went into receivership. Out of that receivership was organized the Milwaukee & St. Paul Railway Company in 1863. In the late sixties the road acquired several railway projects in Iowa and Minnesota. In 1873 the road was extended to Chicago. The road was now called the Chicago, Milwaukee & St. Paul Railway Company. In the eighties the company acquired and constructed mileage extending across

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1. Ibid., 1922. 131 I.C.C., p.832.
2. 131 I.C.C., p.934. Chronicle, vol.125, p.1035.

Illinois, Iowa, and South Dakota to the Missouri River. By the year 1890 the company proudly advertised 6,000 miles of line, the largest road in the northwestern section of the country. Up to this time the growth was mushroom in nature. Bonds were issued to acquire new lines or old ones on these lines were assumed. Sometimes stock was involved in the transactions. The funded debt consisted mostly of some forty divisional bond issues.

Then in the nineties expansion slacked up. Some new mileage was acquired in Wisconsin. Business was depressed a good share of the time. The road began to "dig in." Improvements were made to the extent that earnings permitted.

The early years of the twentieth century were ones of prosperity. Extensions were numerous. However, improvements to the property in other ways than new mileage were characteristic of the period. It was the day of heavier equipment, modernized plant, etc. The divisional bond issues with high interest rates were rapidly being refunded into lower rate bonds (Generals) and preferred stock. Stock was rapidly replacing bonds in the capital structure. The stock was gilt-edged security. The stock was a first-rate media for securing new funds and was so used. The management was one of the best in the country.

These years witnessed great developments on the Pacific Coast. There was a future promise of much traffic with the Orient. To reach this Eldorado, the St. Paul decided to build to the coast. San Francisco, the Puget Sound ports, and other places were considered. The road decided on the Puget Sound ports. In 1906 the construction of the extension was under way from the Missouri River westward bound and from the Sound eastward bound. Three years of rapid construction followed. Through traffic on the new main line commenced in 1909. Numerous branches and feeders to this line were acquired or built. The new lines under a separate corporation were merged with the old lines in 1913. The work was first financed with stock. The rest of the funds were obtained mostly by the sale of bonds issued first as debentures and later included in a mortgage executed on the whole road. The lines were heavily burdened with funded debt.

Some years after the merging of the extension three of the road's western divisions were electrified. The debt burden was still further increased.

Then during the war the road was operated at an enormous loss by the government.

The road was handed back to the owners in 1920 with a scale of operating costs relative to earnings which left an inadequate margin to support the financial structure built up since 1905. The development of traffic on the new lines proved to be far from sufficient to support the financial structure largely built up in the construction of these new lines. The whole property was allowed to deteriorate physically. It was on the "down grade" because of inadequate maintenance and depreciation outlays when the "end" came.

In March, 1925 the road went into receivership and defaulted in the bonds issued to build the extension. A plan of reorganization was worked out, and after a long legal battle, the to the opposition of certain holders of the bonds in default, was approved and put into force. The plan provided for a reduction in interest charges from over $20,000,000 per annum to approximately $13,000,000 per annum. During the receivership the past affairs of the road were exposed to the light. The construction of the extension was clearly the chief cause of the road's difficulties. The directors and the stockholders were severely criticized by the commission for many of their actions subsequent to 1905. The property was wisely and prudently handled by the receivers. Out of the reorganization a new company, the Chicago, Milwaukee, St. Paul & Pacific Railroad Company, was organized to take over the property. The new company took over the property from the receivers early in 1928 to "carry on."

What did the future over an appreciable period of time promise for the road early in 1928?

Certainly the record of the road in the last six years before the assumption of operations of the new company was not such as to warrant optimism as to the rapid growth in its traffic or gross revenues in the years immediately ahead. From the standpoint of tonnage carried that in 1923 was high. Tonnage in 1923 was 51,314,300; and in 1925, 49,598,057, the next best showing in the period. In 1927 the tonnage was 49,289,106. Freight rates, it seemed, were almost constantly being reduced. The revenue per ton-mile in 1922 was 1.094 cents and by 1927 it was down to 1.020 cents. In 1922 the road's gross revenues were $156,950,828. While they were higher in each year of this period since then, the gross of $169,528,338 in 1923 was not equalled up to and including 1927. In 1927 the gross revenues were $162,942,819.

The engineers analysed the future prospects of the road early in 1925 in connection with their examination of the property. This forecast was presented in Chapter IX. It was presented there because it was relevant to an explanation of the whole situation facing the road just prior to the receivership. It was also relevant to an intelligent interpretation of the actions of those in charge in deciding on a receivership and presumably a reorganization at that particular time, and relevant to a certain degree to an explanation of the particular things provided for in the plan of reorganization finally decided upon as presented in the preceding chapters. This forecast need not be repeated in detail here. The engineers on the basis of recent past developments in older territories predicted that similar developments would occur in the new territory adjacent to the new lines (the extension) in the coming years. Also, on the basis of the past growth in the traffic on the older lines in older territories and on the new lines in the newer western territories being projected into the future (assumed) they predicted an increase of 25% over the next ten years in freight traffic revenues and a (further) decline in passenger revenues at the then existing rates and mileage as then constituted. In regard to freight revenues the engineers really predicted a 25% increase in freight traffic. While favorable to the road, the engineers' forecast promised nothing spectacular.

The old lines east of Mobridge at the time of the reorganization rated high in earning power. Traffic was well developed on these lines for many years prior to the receivership. Undoubtedly the outlook was for a continuance of this situation. The territory was pretty well stabilized. The increase in traffic in the future would come, if it was to come at all, from the comparatively undeveloped territory adjacent to the new lines west of Mobridge. In the spring of 1928 the writer sought the opinion of a number of parties, not connected with the road but well acquainted with this western territory, in regard to the future prospects of increased volume of traffic from these districts. The replies to the inquiries indicated a wide divergence of opinion.[1]

Mr. Louis N. Crill, secretary of agriculture in South Dakota, seemed quite optimistic as to the outlook in that state. He claimed that the road's 2,200 miles of line in that state traversed the most productive part of South Dakota. Of course the western section of the state was as yet relatively undeveloped as compared with the section east of the Missouri River. However, in the former section he predicted great growth and development at

1. The names of some of these parties will not be given here in order to comply with the expressed wishes of these parties in this respect.

an early date which would make every mile of the company pay in South Dakota. He felt confident that the road would profit by the construction of extensions of the Faith and Isabel lines westward into the Black Hills territory and the construction of an extension north from Rapid City connecting with the other two extensions and with the coast line at Bowman. He claimed that this territory had great possibilities, the development of which would be hurried by the construction of this suggested link and terminal system. Mr. Crill claimed that there was more natural resources around Rapid City than Denver. Mr. R. L. Bronson, secretary of the Associated Commercial Clubs of the Black Hills, seemed to have the same opinion as Mr. Crill in regard to this territory. He claimed that recent mining, farming, and general business activities and the advent of large eastern corporations into the Black Hills were the forerunners of a development which was to make that region the most important mining district in the United States. He claimed that recently mining engineers found large bodies of rare metals and non-metals many of which were unknown or considered worthless two or three years previous but which in reality were worth from $1,000 to $2,000 per ton.[1] Other authorities claimed that while the territory east of the Missouri River, already well traversed by the lines of the road, would possibly furnish additional traffic for the road, the section of the state west of the river was of such nature as not to warrant

1. Minneapolis Tribune, May 19, 1928.

an optimistic outlook. According to these parties there "wasn't very much west of the river."

In regard to the situation in Montana, Mr. Murray E. Stebbins, secretary of the Montana Wool Growers' Association, claimed that the road's lines in that state traversed very good livestock territory. The Musselshell Valley and the Ingomar territory were claimed to be famous sheep districts with bright prospects. This party pointed out that the company's lines from Harlowton to Lewistown and to Great Falls traversed one of Montana's great wheat areas known as the Judith Basin country. The road had strong competitors in Montana, especially the Northern Pacific, but, according to this authority, appeared to have built up in the short time it had been in the state proportionately just as many followers as any of the other roads. Furthermore this party claimed that the road seemed to hold the people who had become acquainted with it as shippers. Mr. L. A. Sanders, treasurer of Golden Valley County, was of the opinion that the territory traversed by the road in his county was on the up grade. He claimed that the farmers and stockmen had given up the old haphazard methods of farming and stock raising and were on a "good sound" basis. Mr. Barclay Craighead, chief of the Department of Agriculture, Labor, and Industry of the State of Montana, predicted that the road would build two extensions within the next ten or fifteen years. The longest of these would be a line through the so-called Blackfoot country from Missoula to Great Falls. A line for about twenty miles toward Great Falls was already constructed. When completed this line would open a country of some farming importance and of some stock-growing possibilities as well as tap a heavy stand of fine timber in this section. The second line would be south from Miles City through the southern half of Custer and Powder River Counties. He was of the opinion that the road was planning to extend its line in Teton County about 50 miles farther.

In connection with the future prospects in Montana another apparently well informed party did not seem to have such an optimistic opinion. He claimed that one of the best moves that the road had made in Montana was the improvement to the road from Three Forks to Gallatin Gateway and the building of the Gateway Hotel at Gallatin Gateway, about ten miles from Bozeman, giving the road access to Yellowstone National Park. He claimed that the new facilities to the park had increased the road's prestige in Montana and was the only factor explaining the recent increase in travel on the Columbian and the Olympian, two of the road's leading trains. However, this party saw no future as far as the development of either local freight or outbound freight was concerned of any consequence from Terry, Montana, to Taft, Idaho, which included the main line in Montana with the exception of a narrow strip between the state line and Terry. First, he claimed that the country from Terry to the mountains was on the whole not adapted to dry farming and, in his judgment, would primarily always remain a livestock producing country. He claimed that the ranges were about fully stocked with no prospects for a material increase in livestock shipments. In other words, the land was being exploited to its intensive limit. He was of the opinion that no interest had been paid on the county bonds of Golden Valley County for three or four years and that their school district bonds and county bonds were considerably in arrears. This, he claimed, was reflective of conditions in that section. He could see no new territory which could be tapped to bring forth much increased revenue. He thought that the road made a terrific mistake of ever paralleling the Northern Pacific. Second, he claimed that the future on these lines was not bright because of the competition of the Northern Pacific. He claimed that the latter road was maintaining the good will of the public in a remarkable way and that at competitive points the local people seemed to be more loyal to the Northern Pacific than to the competitor. He claimed that the Northern Pacific was renting large areas of grazing lands to stockmen from $50 to a few dollars per section with the provision in the contract that the stockmen who lease this land must agree to ship their livestock and wool over the Northern Pacific or make their leases subject to cancellation. He understood that the Northern Pacific was threatening to cancel some of the leases in the vicinity of Deer Lodge, Montana, because the sheepmen sold their wool to a concern who consigned it over the St. Paul. His personal opinion was that the service rendered by the St. Paul was very good, that the officers and executives of the road were exceptionally "clean" in their business relations with the public, and that it was unfortunate that the lines of this road did not traverse territory which gave promise of giving in the future a very high tonnage.

Mr. L. A. Sanders, in a letter to the writer, vigorously denied that Golden Valley County was defaulting in its bonded obligations. He claimed that there had not been a default in the interest payments in either school district or county bonds since one time in 1923 when the banks with the county's funds closed up. His opinion of the territory was pointed out previously. Mr. Murray F. Stebbins, whose ideas on the territory have already been mentioned, said that he had never seen any such restricted clause as to the road over which shipments were to be made in leases the Northern Pacific had made with stockmen. He had looked over a number of their leases. When his attention was called to this matter by the writer he claimed that he tried to locate such a contract but was unable to find one. Mr. R. P. Findlater, secretary-treasurer of the N Bar N Land & Livestock Corporation, Miles City, Montana, wrote that as far as he and Mr. Percy Williamson, president of that concern, knew there was nothing in the Northern Pacific land leases that compelled lessees to ship their wool or livestock over that road. However, it was understood, he wrote, that, everything else being equal, the Northern Pacific was to have the preference from those leasing their lands. His concern was leasing considerable acreage from the Northern Pacific and had been shipping the wool each year on this railroad. On the other hand, his firm was shipping the bulk of its sheep west on the St. Paul.

Regardless of the correctness of the opinion of the individual who claimed that the bonds of Golden Valley County were in default and that the Northern Pacific was placing such restrictive clauses in its leases in these respects, the position of that party was such at the time as to leave the writer with the impression that his opinions regarding the future prospects of the territory adjacent to the lines of the St. Paul in Montana warranted respect.

As regards the situation in Idaho, Mr. H. H. Wicks, chief field inspector in the Bureau of Plant Industry in the Department of Agriculture of the State of Idaho, pointed out in a letter that the St. Paul traversed a portion of northern Idaho rich in extensive white pine and other kinds of forest in addition to extensive mineral wealth and general agriculture. However, he pointed out that this section was also being served by several powerful competitors. The future development of this territory, he believed, was bright but the future of the business on each of the competing roads depended on the meeting of the above mentioned competition.

Mr. R. K. Tiffany, supervisor of hydraulics in the Division of Hydraulics in the Department of Conservation and Development of the State of Washington, was quite optimistic, as regards the future prospects in that state. He pointed out the large supply of natural resources in the state. A wonderful stand of timber; immense workable bodies of lead, zinc, silver, and copper; large deposits of iron ore which would probably like other metal deposits become workable with new processes and the development of cheap water power; and tremendous supplies of pulp wood adaptable for all kinds of paper and paper products and also rayon were mentioned. Great quantities of an infinite variety of clays suitable for pottery, fire brick, building materials, etc.; large deposits of coal; some known fields of natural gas; a mild and enjoyable climate most attractive to the establishment of industries; splendid seaports; and an agricultural industry which might be doubled or trebled through the addition of irrigated areas, the clearing of cutover lands, and the diking of certain flood plains were also mentioned. He said that he could not say to what extent the St. Paul might directly profit from the development of all this, but presumably it would get a fair share of the new business. The reader will note that Mr. Tiffany was conscious of the fact the road had powerful competitors in that state.

Such then was the opinion of certain well informed persons in the spring of 1928 as to the future prospects of the road in regard to the physical volume of business on the new lines in the western states. The reader will note that the promises of these people differed sharply in some cases. Certain facts stood out clearly in these letters. The territory west of the river in South Dakota was undeveloped and probably could not ever be developed, due to natural limitations, to the level of the section east of the river. In Montana the road ran parallel to the Northern Pacific the competition of which would be keenly felt in the future, and much of the territory in Montana was not of the kind upon which agriculture could be carried in an intensive way to the extent it had been carried elsewhere. In Idaho future development of adjacent areas along with keen competition for the business from these areas seemed to appear on the horizon. In Washington the situation appeared similar to that in Idaho. The reader must not forget that at points where keen competition between carriers would prevail for any new business the St. Paul would be the newer and less well established competitor. The reader must not forget also that while it had with its competitors connections with the seaports on the coast in Washington that it as well as its competitors would be competing with the Panama Canal which had already in the past upset many a calculation and prediction of the management of these carriers as to their probable share in the business resulting from future developments. To be sure much in the way of potentialities as against actualities exist in this northwestern section of the country as compared with older and much more developed sections to the east. However, it seemed that in the spring of 1928, surely nothing more than a very moderately optimistic outlook as to the development of new business for the road on its western lines was warranted.

Of course besides the possibility of an increase in revenues due to an increase in the volume of traffic there was the possibility of an increase in revenues due to an increase in rates. What was the outlook in this respect in the spring of 1928?

During the receivership on May 24, 1925, the carriers in the western district including the northwestern region applied to the commission for an increase in rates on a straight percent basis amounting to about a 10% advance in existing rate levels.[1]

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1. Chronicle, vol.121, p.38.

Shortly after in a letter on June 19 to the public the receivers of the St. Paul announced Potter's plan which they were to present to the commission as a suggestion. Potter was one of the three receivers. The plan called for an increase of only 5% instead of 10% in the existing rate levels. The excess income each road secured at these rates above an amount equal to 5 3/4% on the investment (set by the commission as a fair return some time previously as was provided for in the Transportation Act of 1920) was to be divided among the other carriers not earning 5 3/4%. In other words, the plan was a pooling of excess earnings. It was pointed out in the letter that, accepting book investment until the commission had time to arrive at values for the carriers in the western district, these carriers during 1924 fell short approximately $180,000,000 of earning 5 3/4%. The deficit on the St. Paul was $23,000,000 or 12.75% of the total. If 5% increase was in force and the excess distributed according to the percent of total deficit below 5 3/4%, the net operating income of the St. Paul would have been increased from $10,000,000 to $20,000,000. The percentage return on the book investment would have been increased from 2.59% to 4.02%. The net operating income of the North Western would have been increased from approximately $18,780,000 to $22,195,000 increasing the return on the investment from 3.38% to 4.14%. The net operating income of the Northern Pacific would have been increased $5,945,000, the percentage return increasing from 3.46% to 4.50%. Potter thought that a 5% increase so treated was better than a 10% increase not so treated with the strong roads already unduly benefited. As to the objections of the other carriers, Potter was of the opinion that the 10% they were asking for was probably unobtainable, and therefore 5% was better than nothing even to a road like the Atchison which would receive $2,405,052 from a 5% increase, retaining only $2,051,251 which would be better than nothing. Besides Potter claimed that the roads as common carriers owed a duty to the public to efficiently maintain the transportation system at as low a cost as possible.[1] In August, 1925 Potter announced that the St. Paul was unable to secure the support of other northwestern carriers to the plan but that St. Paul would support the plan alone before the commission in the hearings to be held in Chicago in September relative to increases in rates. Potter was convinced that when a plan such as his was adopted the days of receivership would be over. Of course in calculating the figures mentioned above Potter assumed that the traffic of 1924 would have stood up under the increased rates.

The request of the western carriers, it seemed, finally became one for a 5% horizontal increase in freight rates, subject to certain exceptions. The security holders of the northwestern railroads as an organized group entered into the rate battle in this case before the commission. The entrance of security holders, not actively identified with the railroads, into rate controversies asking for rate increases was something new. The committees of this group claimed that the carriers in the western district were in need of higher rates. They also maintained that there was a low spot

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1. Ibid.

(in rate structure) in the western trunk-line territory of the western district. This low spot was estimated to be 15% below the rate level of the rest of the western district. They requested in addition a 15% horizontal increase in freight rates in western trunk line territory.[1] As pointed out in a previous chapter, a considerable portion of the lines of the St. Paul traversed this territory. The requests of the roads and the security holders were based, it seemed, on the assumption of an existing financial emergency.

The commission after considering the whole matter decided that no such alleged emergency was existing in the western district as a whole. It also decided that no emergency existed even in the western trunk-line territory as to warrant a general increase in rates in that territory. In its decision the commission admitted that certain carriers in the northwestern region and in the western trunk-line territory were not receiving revenues sufficient to yield 5.75% upon any rate bases that could reasonably be adopted in advance of a final determination of present values for rate making purposes. The commission also admitted that the situation was at its worst in the western trunk line territory. However, the commission in its decision held the record open to enable the carriers to exercise their right and duty in taking steps necessary

1. The position of the security holders in this matter was clearly presented in "Reply Brief on Behalf of Committees of Security Holders of Northwestern Railroads," before the Interstate Commerce Commission, Docket No.17000, ExPart 87, New York, April 24, 1926.

to correct improper rate relations as they might be found to exist and to supply revenue deficiencies by instituting suitable changes in rates. But in view of the provisions of the Hoch-Smith resolution the carriers were in this decision admonished that--

"the record, however, warrants us in concluding that in proposing changes in the existing rate structures either for purpose of improving earnings in western trunk line territory, or for the purpose of rectifying inequalities in existing rate structures, carriers should propose no advances in the rates on products of agriculture, including livestock"

except where particular rates needed adjustment to improve inconsistencies or where the product was not affected by depression.[1]

The Hoch-Smith resolution, the reader will doubtless note, would have a serious effect on the St. Paul in the future, as its revenue from agricultural products and livestock appeared to be about 30% of its total freight revenue, based on some studies of its 1924 traffic.

The commission in its report on its investigation of the receivership of the St. Paul pointed out the difficult situation which faced the carriers in the western sections of the country. They were all as a group in the western territory seeking horizontal

1. "Revenues in Western District," 113 I.C.C.

percentage increases in all freight rates, without undertaking to differentiate between the various portions of that very extensive territory or between various commodities. The commission could see no need for increases in that area as a whole but could see the need in parts of the area. Why then did the carriers, knowing as they undoubtedly did, that some carriers were enjoying sufficient earnings at existing rates, resort to the comparatively crude expedient of a horizontal rate increase? Apparently it was due in large part to the competition of the carriers and to the fact that the shippers of many important commodities were located at competitive points where they had the opportunity, if they so desired, to penalize particular carriers in the routing of traffic. Under such circumstances each carrier was reluctant to make the first move toward an increase.[1]

As was pointed out above, the commission left the record open, and in the spring of 1928 was considering specific proposals of the carriers to increase class rates in western trunk-line territory. Hearings were being held at Chicago and other points in the territory traversed by the roads involved. The National Association of Owners of Railroad and Public Utility Securities was supporting the carriers in their requests. The latter claimed that the Hoch-Smith resolution did not and could not call for the continuance of confiscatory rates. Besides, the latter claimed, that resolution affirmatively required the removal of discrimination.

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1. 131 I.C.C., p. 636.

This group maintained that if the requests of certain interests for reductions in grain and livestock rates under this resolution were granted in the face of existing low rates in this territory then the decreases should be compensated for by increases in other commodities. Otherwise there would be an "illegal injury" done the investors. The roads' requests were being opposed by various organized groups directly or indirectly representing the shippers, several state commissions, and a number of municipalities. These bodies were especially opposed to the proposal of the security holders calling for increases in the rates on other than agricultural products if decreases in grain and livestock rates were granted.[1]

The reader will probably be speculating at this time as to the effectiveness of any increases in rates that might be granted in the case before the commission in the spring of 1928. Would the traffic hold up if they were granted? Surely the recent development of the facilities of transport along the upper portions of the Mississippi River toward the point of development already accomplished along the lower portions is relevant to a consideration of this problem.[2] This development had been initiated by the organized shippers of the northwestern section of the country. A new competitor to the railroad had now appeared along with the

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1. Minneapolis Tribune, May 16, 1928.
2. In respect to coal see the Minneapolis Tribune, May 16, 1928 (editorial).

Panama Canal and the motor vehicle. Space forbids a detailed discussion of this new waterway project here.

Therefore in the face of the past downward tendency in freight rates, in the face of the future prospective tendency in freight rates (probably future decreases in certain commodities at least), in the face of any proposed general increases on agricultural products, it seems, being estopped by the Hock-Smith resolution (involving products the shipment of which was bringing in about 30% of the freight revenues of the St. Paul) and in the face of the organized opposition of certain interests to increases on other products and the doubtful effects of any increases in some cases, it would seem that in the spring of 1928 the outlook for the St. Paul in the future for relief and improvement in the way of increased revenues in the future from higher rates was less encouraging than the outlook in respect to increases in the physical volume of business.

However, there was one more alternative toward which the St. Paul could turn in seeking relief and improvement. This was the possibility of reducing the road's expenses and thereby increasing the net return. To a considerable extent the receivers in 1925, 1926, and 1927 carried out the program of expenditures outlined as necessary by Coverdale & Colpitts. The main deficiency was in equipment purchases. However, as was pointed out, the increase in the volume of traffic as predicted by the engineers for these years did not materialize. Therefore the recommended equipment purchases were not necessary as far as handling the new expected business was concerned. Besides, as was also pointed out, the receivers were finding ways of using the old equipment more efficiently than it had been used prior to receivership. These ways would still be available to the new company. The receivers' expenditures for maintenance of way were heavier than those recommended by the engineers. Besides the retirements of old equipment were particular heavy under the receivers. No doubt both of these items could be safely scaled down after 1927. The increased depreciation rates on equipment which were adopted by the road upon the advice of the engineers were to continue, however. Considerable reduction in the percentage of gross revenues spent on equipment and way maintenance could probably be made in the next few years as compared with 1927 even if there was to be no increase in gross revenues. However, any appreciable reduction in transportion ratios would have to await increased gross revenues it seemed. With 11,204 miles of road and gross revenues of about $14,400 per mile it would not be easy in the future to reduce transportation ratios or even way maintenance ratios for that matter without an increase in gross, assuming the road was to be operated efficiently. With the new money provided by the reorganization and the lower fixed charges, many improvements no doubt could be made to the property, particularly the shops which needed them badly at places, which would result in reducing the operating expenses.[1]

With the property back in condition the new company (it seemed early in 1928) should in time be able to reduce its operating

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1. Wall Street Journal, January 31, 1928.

ratio from about 82% where it stood in 1927 to nearer 75% or in other words nearer the operating ratios of some of its competitors. As was pointed out in previous chapters, the St. Paul's operating ratio had not been as low as some of the other northwest carriers since the early days of the present century. With the average gross revenues of recent years up to 1928 every point reduction in the operating ratio would mean almost 1% additional earned on the new adjustment bonds. In the three years of receivership an average of only about 2% was earned on the adjustment bonds. However, the reader will no doubt agree that the receivership period, especially the year 1927, cannot be taken as indicative of the earnings power of the road.[1] Lisman, referred to previously a number of times in the latter chapters of this history, pointed out in 1927 that a reduction in the operating ratio to 75% would result in 7.8% being available on the adjustment 5's even without assuming a "very great" increase in the volume of traffic. A reduction to 72% or to the level of some of the northwestern lines would mean 10% on the adjustment 5's. As to the preferred stock, a ratio of 75% would mean 5% and a ratio of 72% would mean well over 7% with a balance of $2 left for the common.[2] The reader may take these calculations of Lisman for what he thinks they are worth. They are interesting at least in showing the effects of reductions in the operating ratio in the way of restoring the road's credit without a very great increase

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1. Business Survey, February 23, 1928.
2. Analysis, p. 12. Chronicle, vol.124, p.1975.

in the volume of traffic.

To sum up then, in the spring of 1928 the future did not seem to promise a very great increase in the physical volume of business (probably not as great as 25% as predicted by the engineers in the next ten years in the light of the failure of their predictions to materialize during the first three years of this period) nor any increases of consequence in freight rates but rather some decreases on some commodities. However, there seemed to be possibilities in the way of reductions in expenditures at the existing volume of traffic and the existing rates, thereby increasing the net. This was to be the real problem for the management of the road. The outlook for the payment of the full 5% on the new adjustment 5's was favorable. Dividends on the preferred seemed remote and dividends on the common seemed still more remote. The outlook was also for financing future additions and improvements by the sale of bonds of the new financing mortgage, provided for in the reorganization plan, if new money other than that obtained from operations (earnings) was to be necessary for these additions and improvements. Unless these additions and improvements increased the earnings to a greater amount than the new interest charges, dividends on the stock and the time when stock was to be available as financing media and refunding media were to be still more remote than in the spring of 1928. Of course in justice to the road, able management and careful use of funds should be assumed in speculations of this nature.

TABLE I.

THE FUNDED DEBT ON JUNE 30, 1891.[1]

Description of Security	Rate	Due	Amount originally issued		Amount issued June 30, 1891
Consolidated	7%	July 1,1904	$1,039,000	*	$ 137,000
Consolidated	7%	July 1,1905	13,092,000	*	11,399,000
Terminal Bonds	5%	July 1,1914	4,809,000		4,773,000
Income Sinking Fund Convertible	5%	July 1,1916	2,000,000	‡	1,920,000
LaCrosse Division	7%	Jan.1,1893	6,800,000	*	4,960,000
Iowa & Minnesota Division	7%	July 1,1897	3,810,000	*	3,198,000
Prairie du Chien Division, First Mortgage	8%	Feb. 1,1898	3,674,000		3,674,000
Prairie du Chien Division, Second Mortgage	7 3/10%	Feb.1,1898	1,315,000	*	1,241,000
Chicago & Milwaukee Division	7%	Jan. 1,1903	2,500,000	*	2,393,000
St.Paul(or River)Division	7%	Jan. 1,1902	4,000,000	*	3,262,000
St.Paul(or River)Division, Sterling	7%	Jan. 1,1902		*	542,500
Iowa & Dakota Division	7%	July 1,1899	2,048,000	*	541,000
Iowa & Dakota Division Extension	7%	July 1,1908	5,038,000	*	3,505,000
Hastings & Dakota Division	7%	Jan. 1,1902	1,350,000	*	89,000
Hastings & Dakota Division Extension	7%	Jan. 1,1910	5,680,000		5,680,000
Hastings & Dakota Division Extension	5%	Jan. 1,1910	990,000		990,000
Southwestern Division	6%	July 1,1909	4,000,000		4,000,000
LaCrosse & Davenport Division	5%	July 1,1919	2,500,000		2,500,000
Chicago & Pacific Division	6%	Jan. 1,1910	3,000,000		3,000,000
Chicago & Pacific Western Division	5%	Jan. 1,1921	25,340,000		25,340,000
Southern Minnesota Division	6%	Jan. 1,1910	7,432,000		7,432,000
Mineral Point Division	5%	July 1,1910	2,840,000		2,840,000
Dubuque Division	6%	July 1,1920	6,710,000		6,565,000
Wisconsin Valley Division	6%	July 1,1920	2,517,000		2,416,000
Wisconsin & Minnesota Division	5%	July 1,1921	4,755,000		4,755,000
Chicago & Lake Superior Division	5%	July 1,1921	1,380,000		1,380,000
Chicago & Missouri River Division	5%	July 1,1926	3,083,000		3,083,000
Real Estate	5%	1894			225,000
Minnesota Central Railroad	6%	1894	2,000,000		133,000
Milwaukee & Western Railroad	7%	1891			215,000
Wisconsin Valley Railroad	6%	Jan. 1,1909	1,106,500		106,500
Fargo & Southern Railway	6%	Jan. 1,1924	1,250,000		1,250,000
Income, Fargo & Southern Railway	6%	April,1895			200,000
Dakota & Great Southern Railway	[illegible]	Jan. 1,1916	[illegible]		[illegible]

682. cont.

Total Funded Debt on June 30, 1891	$ 129,797,000
Less Bonds in the Treasury or due from Trustees(unsold)	5,692,000
Total Bonds in the Hands of the Public on June 30, 1891	$ 124,105,000

1. Poor's, 1892, p.146.

*Convertible into preferred stock at par within 10 days after any dividend date.

†Convertible into common stock at par on notice within 60 days after any dividend date.

TABLE II.

CHANGES IN THE PROPERTY ACCOUNT FROM JUNE 30,1891 TO JUNE 30,1898.[1]

Cost of Road and Equipment on June 30,1891			$189,624,728.01
Additions:			
Improvements and Additions to the Property		$ 9,339,488.61	
Big Items:			
Equipment	$3,751,674.79		
Real Estate & Right-of-Way	380,266.44		
Buildings	321,001.02		
Iron Bridge and Viaducts	887,228.44		
Yard Improvements	258,915.73		
Fences	144,591.09		
Culverts	77,880.22		
Second Main and Side Tracks	1,987,894.19		
Widening,Gauge, Ballasting,Rip-Rapping,etc.	1,201,713.81		
Extensions	207,448.35		
Third and Fourth Main Track	49,477.37		
Purchase of the Milwaukee & Northern Railroad		13,394,710.75	
Purchase of the Prairie du Chein & McGregor Railway		90,000.00	
Discount on General Mortgage Bonds		1,113,320.00	
Purchase of Oshkosh & Mississippi Railway Company stock		48.00	
Purchase of Chicago & Pacific Rail-road Company stock		747.00	
Miscellaneous		18,074.32	
Unexplained		1,080,508.40	
Total Additions		$34,803,617.44	
Deductions:			
Premiums on General Mortgage Bonds	$125,000.00		
Sundry Credits representing Property taken down,destroyed,etc.and withdrawn from Inventory	108,050.66		
Total Deductions		233,050.66	
Net Additions			34,570,566.78
Cost of Road and Equipment on June 30, 1898.			$224,195,294.79

1.Annual Reports,1892 to 1898 inclusive.

TABLE III.

THE CHANGES IN THE FUNDED DEBT FROM JUNE 30,1891 TO JUNE 30,1898.[1]

Bonds in the Hands of the Public and in the Insurance Fund on June 30, 1891			$124,125,000
Bonds in the Treasury or Due from Trustees on June 30, 1891			5,672,000
Total Funded Debt on June 30, 1891			$129,797,000
Increased by Generals issued for:			
Improvements to the Property	$9,160,000		
Underlying Bonds redeemed and cancelled	7,294,000	$16,454,000	
Milwaukee & Northern Bonds assumed		7,247,000	23,701,000
			$153,498,000
Decreased by:			
Underlying Bonds redeemed and cancelled:			
Income Sinking Fund Convertible	$ 537,000		
Wisconsin Valley Division	184,000		
Terminal	85,000		
Milwaukee & Western	215,000		
LaCrosse Division	1,248,000		
Fargo & Southern	200,000		
Real Estate	225,000		
Minnesota Central	123,000		
Dubuque Division	340,000		
Prairie du Chien Division, First Mortgage	3,548,000		
Prairie du Chien Division, Second Mortgage	215,000		
Iowa & Dakota Division	350,000	$7,190,000	
Underlying Bonds received in exchange for Preferred Stock and cancelled:			
LaCrosse Division	$3,375,000		
Prairie due Chien Division, Second Mortgage	1,019,000		
Iowa & Minnesota Division	2,815,000		
Iowa & Dakota Division and Extension	483,000		
Consolidated of 1874	3,000		
Consolidated of 1875	973,000		
St.Paul(or River) Division, Dollar and Sterling	764,500		
Chicago & Milwaukee Division	248,000	9,619,500	16,809,500
			$136,588,500
Total Funded Debt on June 30, 1898.			
Consisting of:			
Bonds in the Hands of the Public and in the Insurance Fund		$130,001,500	
Bonds in the Treasury or due from Trustees		6,587,000	

1. Annual Report, 1892 to 1898 inclusive.

TABLE IV.

THE FUNDED DEBT ON JUNE 30, 1898.[1]

Description of Security	Rate	Due	Amount Issued.
Iowa & Minnesota Division (a)	7%	July 1,1897	*$ 33,000
Prairie du Chien Division, First Mortgage (b)	8%	Feb. 1,1898	36,000
Prairie du Chien Division, Second Mortgage (b)	7 3/10%	Feb. 1,1898	* 5,000
Chicago & Milwaukee Division	7%	Jan. 1,1903	* 2,145,000
St. Paul (or River) Division	7%	Jan. 1,1902	* 2,253,000
St. Paul (or River) Division, Sterling	7%	Jan. 1,1902	* 387,000
Iowa & Dakota Division	7%	July 1,1899	* 385,000
Iowa & Dakota Division Extension	7%	July 1,1908	* 3,339,000
Consolidated	7%	Jan. 1,1904	* 183,000
Consolidated	7%	July 1,1905	* 10,327,000
Terminal	5%	July 1,1914	4,749,000
Hastings & Dakota Division	7%	Jan. 1,1903	* 89,000
Hastings & Dakota Division Extension	7%	Jan. 1,1910	5,680,000
Hastings & Dakota Division Extension	5%	Jan. 1,1910	990,000
Southwestern Division	6%	July 1,1909	4,000,000
LaCrosse & Davenport Division	5%	July 1,1919	2,500,000
Chicago & Pacific Division	6%	Jan. 1,1910	3,000,000
Chicago & Pacific Western Division	5%	Jan. 1,1921	25,340,000
Southern Minnesota Division	6%	Jan. 1,1910	7,432,000
Mineral Point Division	5%	Jan. 1,1910	2,840,000
Dubuque Division	6%	July 1,1920	6,225,000
Wisconsin Valley Division	6%	July 1,1920	2,227,000
Wisconsin & Minnesota Division	5%	July 1,1921	4,755,000
Chicago & Lake Superior Division	5%	July 1,1921	1,360,000
Chicago & Missouri River Division	5%	July 1,1926	3,083,000
Dakota & Great Southern Railway	5%	Jan. 1,1916	2,953,000
Fargo & Southern Railway	6%	Jan. 1,1924	1,250,000
Wisconsin Valley Railroad	7%	Jan. 1,1909	1,106,500
Income Sinking Fund Convertible	5%	July 1,1916	† 1,291,000
Income Sinking Fund Convertible drawn for Payment, Interest ceased February 3,1898			12,000
General Mortgage	4%	May 1,1989	29,174,000
Milwaukee & Northern Railroad	6%	May 1,1910	2,155,000
Milwaukee & Northern Railroad Consolidated	6%	June 1,1913	5,092,000
Total Funded Debt on June 30, 1898			$138,588,500
Less Bonds in the Treasury or due from Trustees:			
General Mortgage		$5,498,000	
Milwaukee & Northern Railroad Consolidated		1,089,000	6,587,000
Total Bonds in the Hands of the Public and in the Insurance Fund on June 30, 1898.			$130,001,500

(a) Bonds matured, and interest ceased July 1,1897.
(b) Bonds matured and interest ceased Feb. 1,1898.
*Convertible into preferred stock.
†Convertible into common stock.

1. Poor's, 1898, p.287.

TABLE V.

THE RENEWAL AND IMPROVEMENT FUND ON JUNE 30, 1905.[1]

Credits from the Earnings of the Company to June 30, 1905		$ 9,915,000.00
Interest Received on Balances.		755,233.64
Total Credits.		$10,670,233.64
Expenditures to June 30, 1905:		
Elevation of Tracks in Chicago:		
Chicago & Milwaukee Division	$ 797,750.66	
Chicago & Council Bluffs Division in Illinois	586,312.49	1,384,063.15
Improvements at Western Avenue, Chicago		137,010.46
Transfer House and Tracks, Galewood, Illinois		45,781.55
Third and Fourth Main Tracks, Chicago & Milwaukee Division		145,224.46
Reducing Grades and Improving Line:		
LaCrosse Division	$1,113,331.63	
Chicago & Council Bluffs Division in Iowa	903,218.49	
River Division	395,728.69	
Iowa & Minnesota Division	265,342.95	2,677,621.76
Escanaba Docks and Terminal Facilities		638,871.05
Change of Line, Redfield, South Dakota		24,729.48
Change of Gauge, Preston Branch		173,785.54
Change of Gauge, Wabasha Division		275,051.92
Menomonee Valley Connecting Track		57,135.08
Repair Damage of Kansas City Flood		85,017.40
New Yard and Structures at Laredo, Missouri		55,493.23
Filling Levee in the Mississippi River at Red Wing, Minnesota		20,550.00
Replacement of the Bridge over the Mississippi River between St. Paul and Minneapolis with a Double Track Structure		337,083.37
Replacement of the Bridge over the Mississippi River at La Crosse, Wisconsin		275,901.31
Replacement of the Bridge over the Menomonee River at Milwaukee, Wisconsin		99,286.58
Replacement of the Bridge over the Mississippi River at Sabula, Iowa		2,050.81
Replacement of the Bridge over the Cedar River at Cedar Rapids, Iowa		49,925.95
Replacement of the Bridge over the Rock River at Byron, Illinois		80,395.50
Improvements at the West Milwaukee Shops.		166,740.57
Improvements at the Dubuque Shops.		6,498.28
Total Expenditures.		$ 6,704,127.35
Unexpended Balance on June 30, 1905.		$ 3,966,106.29

1. Annual Report, 1905.

TABLE VI.

THE CHANGES IN THE CAPITAL ACCOUNTS FROM JUNE 30,1898 TO JUNE 30,1905.[1]

Cost of Road and Equipment on June 30, 1898.			$214,195,294.69
Bonds and Stocks of Other Companies on June 30,1898.			840,523.12
Capital Accounts on June 30, 1898.			$215,035,817.81

Additions:			
Improvements and Additions to the Property:			
Rolling Stock		$9,852,586.84	
Real Estate		948,701.77	
Second Main Track		2,173,900.36	
Extensions		11,486,271.83	
Improvements on the Davenport,Rock Island & Northwestern Railway		124,812.93	
Improvements,Various Places			
Big Items:			
Galewood Yard and Structures	$280,213.85		
Shops	918,834.92		
Office Building at Chicago	107,972.34		
Yard,West Davenport	145,963.88		
Ballasting	384,924.75		
Yard Tracks, etc.	581,485.45	3,229,485.41	$27,785,739.13
Purchase of the Des Moines,Northern & Western Railroad			2,463,595.71
Purchase of the Milwaukee & Superior Railway			341,174.83
Paid in Settlement for Claim Against the Central Railroad of Minnesota			3,000.00
Increase in Stocks and Bonds of Other Companies from June 30,1898 to June 30, 1905			1,329,980.13
Purchase of Additional Securities:			
Wisconsin Western Railroad		$ 804,588.00	
Southern Minnesota Railway		94.00	
Minnesota Transfer Railway Bonds		10,842.57	
St.Paul Union Depot Co.		58,250.00	
Standard Office Co.		177,800.00	
St.Paul Coal Company		946,198.33	
Braceville Coal Co.		113,388.03	
Excelsior Coal Co.		239,947.60	
Rochelle & Southern Railway		843,899.73	
Kansas City Union		100,000.00	

687. Cont.

...of Company			
White River Valley Railway	84,254.18		
Bureau County Mineral Railway	94,944.03	3,998,225.45	
Total Additions		$35,328,715.25	
Deductions:			
Sundry Credits representing property taken down, destroyed, etc. and withdrawn from Inventory.	$ 719,709.51		
Credit, Cost of Second Main Track Charged to Cost of Road and Equipment prior to June 30, 1898 and June 30, 1899, and charged to the Renewal and Improvement Fund in October, 1898 and October, 1899.	188,580.81		
Premium on General Mortgage Bonds.	3,125.00		
Premium on Common Stock Sold	1,532,335.68		
Premium on Real Estate Sold	4,500.00		
Total Deductions		2,448,251.00	
Net Additions			32,880,464.25
			$247,916,282.06
			5,850.68
Unexplained			$247,910,431.38

Capital Accounts on June 30, 1905.

Consisting of:	
Cost of Road and Equipment	$242,431,436.52
Bonds and Stocks of other Companies	5,478,994.86
Or:	
Amounts of Capital Accounts Represented by Stocks and Bonds Issued	$229,687,800.00
Earnings and Other Income Expended for Additions and Betterments	18,222,631.38

1. Annual Reports, 1899 to 1905 inclusive.

TABLE VII.

THE CHANGES IN THE FUNDED DEBT FROM JUNE 30, 1898 TO JUNE 30, 1905.[1]

Bonds in the Hands of the Public and in the Insurance Fund on June 30, 1898.			$ 130,001,500
Bonds in the Treasury or due from Trustees on June 30, 1898.			6,587,000
Total Funded Debt on June 30, 1898.			$ 136,588,500
Increased by Generals issued for:			
Purchase of the Des Moines, Northern & Western		$2,467,000	
Improvements to the Property		1,848,000	
Underlying Bonds Redeemed and Cancelled		1,796,000	6,111,000
			$ 142,699,500
Decreased by:			
Underlying Bonds Redeemed and Cancelled:			
Income Sinking Fund Convertible	$ 181,000		
Wisconsin Valley Division	235,000		
Dubuque Division	780,000		
Prairie du Chien Division, First Mortgage	28,000		
Prairie du Chien Division, Second Mortgage	5,000		
Iowa & Dakota Division	74,000		
Iowa & Minnesota Division	33,000		
St.Paul(or River)Division	285,000		
St.Paul(or River)Division, Sterling	77,000		
Chicago & Milwaukee Division	880,000		
Hastings & Dakota Division	5,000		
Consolidated of 1904	12,000	$1,771,000	
Underlying Bonds Received in Exchange for Preferred Stock and cancelled:			
Hastings & Dakota Division	$84,000		
Iowa & Dakota Division	211,000		
Iowa & Dakota Division Extension	2,503,000		
St.Paul(or River Division	2,363,000		
St.Paul(or River) Division	295,000		
Chicago & Milwaukee Division	2,057,000		
Consolidated of 1874	171,000		
Consolidated of 1875	9,320,000	$17,509,000	
Income Sinking Fund Convertible Exchanged for Common Stock		1,122,000	
Amount of Bonds entered as due from Trustees on June 30, 1899 on Account of the Construction of Lines from Fonda to Spencer and from Rockwell City to Storm Lake, it having been decided to have the cost of these paid from the Proceeds of the Sale of Common Stock.		121,000	20,523,000
Total Funded Debt on June 30, 1905.			$122,176,500
Consisting of:			
Bonds in the Hands of the Public and in the Insurance Fund.		$116,264,500	
Bonds in the Treasury or due from Trustees.		5,912,000	

1. Annual Reports, 1899 to 1905 inclusive.

TABLE VIII.

THE FUNDED DEBT ON JUNE 30, 1905.[1]

Description of Security	Rate	Due	Amount Issued
St.Paul(or River)Division,Dollar and Sterling (a)	7%	Jan. 1,1902	$ 30,000
Consolidated	7%	July 1,1905	* 507,000
Iowa & Dakota Division Extension	7%	July 1,1908	* 831,000
Southwestern Division	6%	July 1,1909	4,000,000
Southern Minnesota Division	6%	July 1,1910	7,432,000
Hastings & Dakota Division Extension	7%	Jan. 1,1910	5,680,000
Hastings & Dakota Division Extension	5%	Jan. 1,1910	990,000
Mineral Point Division	5%	July 1,1910	2,840,000
LaCrosse & Davenport Division	5%	July 1,1919	2,500,000
Wisconsin Valley Railroad	7%	Jan. 1,1909	1,106,500
Wisconsin Valley Division	6%	July 1,1920	2,003,000
Dubuque Division	6%	July 1,1920	6,465,000
Chicago & Pacific Division	6%	Jan. 1,1910	3,000,000
Chicago & Pacific Western Division	5%	Jan. 1,1921	25,340,000
Chicago & Lake Superior Division	5%	July 1,1921	1,360,000
Wisconsin & Minnesota Division	5%	July 1,1921	4,755,000
Fargo & Southern Railway	6%	Jan. 1,1924	1,250,000
Terminal	5%	July 1,1914	4,748,000
Dakota & Great Southern Railway	5%	Jan. 1,1916	2,855,000
Chicago & Missouri River Division	5%	July 1,1926	3,083,000
General Mortgage, Series A	4%	May 1,1989	24,000,000
General Mortgage, Series B	3 1/2%	May 1,1989	11,164,000
Milwaukee & Northern Railroad	6%	June 1,1910	2,155,000
Milwaukee & Northern Consolidated	6%	June 1,1913	5,092,000
Total Funded Debt on June 30, 1905.			$122,176,500

Less Bonds in the Treasury of due from the Trustees:

General Mortgage, Series A	$ 159,000	
General Mortgage, Series B	4,664,000	
Milwaukee & Northern Railroad Consolidated	1,089,000	5,912,000
Total Bonds in the Hands of the Public and in the Insurance Fund on June 30,1905.		$116,264,500

(a) Bonds matured and interest ceased Jan. 1,1902.
*Convertible into preferred stock.

1. Chronicle, Railway & Industrial Section, vol.81, p.37.

TABLE IX.

THE RENEWAL FUND ON JUNE 30, 1910.[1]

Credits from the Earnings of the Company to June 30, 1910		$11,426,758.23
Interest Received on Balances.		1,101,466.75
Total Credits		$12,528,224.98
Expenditures to June 30, 1910:		
Elevation of Tracks-		
Chicago & Milwaukee Division	$1,220,386.92	
Chicago & Evanston Division	843,009.93	
Chicago & Council Bluffs Division	566,252.49	2,629,739.34
Improvements at Western Avenue, Chicago.		244,525.63
Transfer House and Yards, Galewood, Illinois.		55,029.52
Escanaba Docks and Terminal Facilities.		1,277,611.65
Change of Gauge, Preston Branch.		173,765.8[illegible]
Change of Gauge, Wabasha Division		275,051.92
Menomonee Valley Connecting Track		57,135.08
Repair Damage		125,083.34
New Yard and Structures, Laredo, Missouri		57,788.98
New Subway, Fond du Lac Avenue, Milwaukee		45,440.15
Filling Levee in the Mississippi River, Red Wing, Minn.		20,550.00
Replacement of the Bridge over the Mississippi River between St. Paul and Minneapolis with a double track structure.		334,442.77
Replacement of the Bridge over the Mississippi River at La Crosse, Wisconsin.		275,901.31
Replacement of the Bridge over the Menomonee River at Milwaukee.		99,554.09
Replacement of the Bridge over the Mississippi River at Sabula, Iowa.		218,923.36
Replacement of the Bridge over the Cedar River at Cedar Rapids, Iowa.		63,321.44
Replacement of the Bridge over the Rock River at Byron, Illinois.		87,287.91
Replacement of the Bridge over the Wisconsin River at Sauk City, Wisconsin.		49,788.29
Replacement of the Bridge over Burnham's Canal, Milwaukee		130,710.41
Replacement of the Sixth Street Viaduct, Milwaukee, Wis.		105,076.19
Replacement of the Bridge over the Des Moines River at Madrid, Iowa.		28,899.04
Replacement of the Bridge over the Des Moines River at Ottumwa, Iowa.		44,406.34
Replacement of the Bridge over part of the Mississippi River at Davenport, Iowa.		36,891.00
Replacement of the Bridge over the Menomonee River at The Milwaukee Stock Yards.		28,398.12
Replacement of the First Avenue Viaduct, Milwaukee, Wis.		80,539.97
Replacement of the Bridge over the Kinnickinnick River at Stowell, Wisconsin.		149,679.22
Improvements at the Milwaukee Shops.		384,472.31
Improvements at the Dubuque Shops.		9,380.95
Additional Weight of Rail and Fastenings.		412,712.80
Additional Ties.		89,481.36
Total Expenditures.		$ 7,973,543.75
Unexpended Balance on June 30, 1910.		$ 4,544,681.23

1. Annual Report, 1910.

TABLE X.

THE CHANGES IN THE PROPERTY ACCOUNT FROM JUNE 30,1906 TO JUNE 30,1913.

Cost of Road and Equipment on June 30, 1906.		$242,431,436.52
Bonds and Stocks in Other Companies on June 30,1906.		5,478,994.86
Capital Accounts on June 30, 1906.		$247,910,431.38
Additions:		
Improvements and Additions to the Property:		
Rolling Stock	$32,378,259.63	
Less Equipment sold, destroyed, or taken down and removed from Inventory from July 1, 1907 to June 30,1913	3,058,962.26	
	$29,319,297.37	
Extensions	12,445,117.81	
Second Main Track	19,743,516.40	
Third and Fourth Main Track	534,249.65	
Real Estate	144,720.08	
Miscellaneous Improvements:		
Big Items:		
Improving Line $8,883,965.52		
Yard Improvements, Sidings, &Spurs 4,705,204.39		
Ballasting 2,939,276.34		

TABLE XI.

THE CHANGES IN THE FUNDED DEBT FROM JUNE 30, 1905 TO JUNE 30, 1913.[1]

Bonds in the Hands of the Public and in the Insurance Fund on June 30, 1905.			$118,178,500
Bonds in the Treasury or due from Trustees on June 30, 1905.			5,198,000
Total Funded Debt on June 30, 1905.			$123,176,500
Increased by:			
Generals issued for:			
Improvements to the Property	$55,682,000		
Underlying Bonds redeemed & cancelled	26,837,000	$82,528,000	
25 year Gold Debenture 4's sold		28,050,000	
15 year European Loan Gold Debenture 4's sold		48,178,854.??	
Convertible Gold Debenture 4 1/2's sold		48,850,800	
Chicago, Milwaukee & Puget Sound Railway 4's assumed		173,525,511.64	361,305,489.30
			$483,305,489.30
Decreased by:			
Underlying Bonds redeemed and cancelled:			
Consolidated of 1875	$ 507,000		
Dubuque Division	878,000		
St. Paul (or River) Division	20,000		
Wisconsin Valley Railroad	1,103,500		
Iowa & Dakota Division Extension	212,000		
Wisconsin Valley Division	173,000		
Southwestern Division	3,999,000		
Hastings & Dakota Division Extension 7's	5,680,000		
Hastings & Dakota Division Extension 5's	990,000		
Chicago & Pacific Division	3,000,000		
Southern Minnesota Division	7,432,000		
Mineral Point Division	2,840,000	$25,837,500	
Convertible Underlying Bonds received in exchange for Preferred Stock and cancelled:			
Iowa & Dakota Division Extension		619,000	27,456,000.00
Total Funded Debt on June 30, 1913.			$455,849,489.30
Consisting of:			
Bonds in the Hands of the Public and in the Insurance Fund.			$299,554,454.88
Bonds in the Treasury or due from Trustees.			158,295,511.64
Or: Mortgage Bonds			$330,772,511.64
Debenture Bonds.			125,077,988.30

1. Annual Reports, 1905 to 1913 inclusive.

TABLE XII.

THE FUNDED DEBT ON JUNE 30, 1913.[1]

Description of Security	Rate	Due	Amount Issued
Southwestern Division (a)	5%	July 1,1909	$ 1,000
Terminal	5%	July 1,1914	4,748,000
La Crosse & Davenport Division	5%	July 1,1919	2,500,000
Dubuque Division	5%	July 1,1920	4,587,000
Wisconsin Valley Division	5%	July 1,1920	1,829,000
Chicago & Pacific Western Division	5%	Jan. 1,1921	25,340,000
Wisconsin & Minnesota Division	5%	July 1,1921	4,755,000
Chicago & Lake Superior Division	5%	July 1,1921	1,360,000
Fargo & Southern Railway	6%	Jan. 1,1924	1,250,000
Chicago & Missouri River Division	5%	July 1,1926	3,083,000
Dakota & Great Southern Railway	5%	Jan. 1,1916	2,856,000
General Mortgage, Series A	4%	May 1,1989	49,000,000
General Mortgage, Series B	3 1/2%	May 1,1989	8,950,000
General Mortgage, Series C	4 1/2%	May 1,1989	39,741,000
Milwaukee & Northern Railroad	4 1/2%	June 1,1934	2,155,000
Milwaukee & Northern Consolidated	4 1/2%	June 1,1934	5,092,000
Chicago, Milwaukee & Puget Sound Railway	4%	Jan. 1,1949	173,525,511.84
25 year Gold Debentures	4%	July 1,1934	28,050,000
15 year European Loan Gold Debentures	4%	June 1,1925	48,178,554.68
Convertible Gold Debentures.	4 1/2%	June 1,1932	† 48,850,800
Total Funded Debt on June 30, 1905.			$455,849,666.30
Less Bonds in the Treasury or due from the Trustees:			
General Mortgage, Series A		$ 159,000.00	
General Mortgage, Series C		9,741,000.00	
Chicago, Milwaukee & Puget Sound Railway		146,350,511.84	
Convertible Gold Debenture		44,700.00	156,295,211.84
Total Bonds in the Hands of the Public and in the Insurance Fund on June 30, 1913.			$299,554,454.46

(a) Bonds matured and interest ceased July 1,1909.

† Convertible into common stock.

1. Poor's, 1914, p. 1002.

TABLE XIII.

THE CHANGES IN THE PROPERTY ACCOUNT FROM JUNE 30,1913 TO DECEMBER 31,1917.[1]

Cost of Road and Equipment on June 30, 1913.		$518,809,393.83
Additions:		
Improvements and Additions to the Property:		
Rolling Stock	$16,507,956.08	
Less Equipment sold, destroyed or taken down and removed from Inventory	4,784,039.74	
	$12,723,947.34	
New Branches and Extensions	12,702,417.79	
Construction Second Main Track, reducing Grade, and improving Line	18,111,899.49	
Other Additions and Betterments.		
Big Items:		
Shop Improvements $ 544,370.79		
Shop Machinery 576,893.38		
Water & Fuel Stations, Shops & Engine Houses 1,846,167.36		
Yard Improvements 762,778.97		
Electric Power Transmission 6,190,443.80		
Signals & Interlockers 3,299,195.85		
Sidings and Spur Tracks 485,816.33		
Improvements of Crossings 1,135,818.44		
Fencing 173,248.50		
Station Bldgs. etc. 1,639,641.56		
Track Laying & Surfacing 637,388.80		
Crossings & Signs 740,918.19		

Crossings & Signs 740,918.19			
Grain Elevators & Storage House 274,409.00			
Paving & Assessments 869,232.57			
Right-of-Way and Station Grounds 570,242.06			
Real Estate 538,980.48			
Widening Cuts and Fills 359,841.84			
Protection of Banks and Drainage 162,169.84			
Bridges, Trestles, & Culverts 5,700,384.10			
Ballast 2,216,737.69			
Grading 3,000,406.91			
Tunnels & Subways 875,934.41			
Ties 256,528.18			
Rails 1,202,551.89			
Other Track Materials 1,385,078.32			
Miscellaneous 2,493,528.75	$85,791,746.51		
Purchase of the Great Falls Terminal Ry.	855,902.47		
Purchase of the Idaho & Washington Northern Railroad	5,589,784.05		
Purchase of the Big Black Foot Railway	1,182,507.00		
Total Additions		$93,389,940.03	
Deductions:			
Credits representing Property taken down, destroyed, etc. and withdrawn from Inventory.		7,559,505.32	
Net Additions.			85,830,434.71
			$604,638,828.94
Unexplained.			59,992.00
Cost of Road and Equipment on December 31, 1917.			$604,578,836.94

1. Annual Reports, 1914 to 1917 inclusive.

TABLE XIV.

CHANGES IN THE FUNDED DEBT FROM JUNE 30, 1913 TO DECEMBER 31, 1917.[1]

Bonds in the Hands of the Public and in the Insurance Fund on June 30, 1913.			$299,554,454.66
Bonds in the Treasury or due from Trustees on June 30, 1913.			156,295,511.64
Total Funded Debt on June 30, 1913.			$455,849,466.30
Increased by:			
General & Refunding Bonds issued for:			
C.M. & P.S. 4's ex exchanged	$154,489,500		
Improvements to the Property	25,000,000	$179,489,500.00	
Convertible Gold 4 1/2's:			
Sold	$ 1,149,200		
Exchanged for Idaho & Washington Northern Securities	5,319,000	6,468,200.00	
C.M.& P.S. 4's issued to the Company.		8,138,988.38	
General 4 1/2's sold		2,856,000.00	
Gold 4's sold		35,100,158.05	232,052,846.41
			$687,902,312.71
Decreased by:			
C.M.& P.S.4's exchanged and pledged.		$154,489,500.00	
15 year European Loan 4's refunded		35,100,158.05	
Underlying Bonds retired and cancelled:			
Terminal	$4,748,000		
Dakota & Great Southern Railway	2,852,000		
Dubuque Division	326,000		
Wisconsin Valley Division	82,000		
Southwestern Division	1,000	8,009,000.00	197,598,658.05
Total Funded Debt on December 31, 1917.			$490,304,154.66
Consisting of:			
Bonds in the Hands of the Public and in the Insurance Fund.			$383,044,954.66
Bonds in the Treasury or due from Trustees.			107,259,200.00

1. Annual Reports, 1914 to 1917 inclusive.

TABLE XV.

THE FUNDED DEBT ON DECEMBER 31, 1917.[1]

Description of Security	Rate	Due	Amount Issued
La Crosse & Davenport Division	5%	July 1,1919	$ 2,500,000
Dubuque Division	5%	July 1,1920	4,241,000
Chicago & Pacific Western Division	5%	Jan. 1,1921	25,340,000
Wisconsin & Minnesota Division	5%	July 1,1921	4,755,000
Fargo & Southern Railway	5%	Jan. 1,1924	1,250,000
Chicago & Lake Superior Division	5%	July 1,1921	1,360,000
Chicago & Missouri River Division	5%	July 1,1926	3,083,000
Dakota & Great Southern Railway	5%	Jan. 1,1916	4,000
Wisconsin Valley Division	5%	July 1,1920	1,747,000
General Mortgage, Series A	4%	May 1,1989	49,000,000
General Mortgage, Series B	3 1/2%	May 1,1989	8,950,000
General Mortgage, Series C	4 1/2%	May 1, 1989	42,597,000
Milwaukee & Northern Railroad	4 1/2%	June 1,1934	2,155,000
Milwaukee & Northern Consolidated	4 1/2%	June 1,1934	5,092,000
Chicago, Milwaukee & Puget Sound Railway	4%	Jan. 1,1949	27,175,000
25 year Gold	4%	July 1,1934	33,399,000
15 year European Loan	4%	June 1,1925	15,076,496.61
Gold (issued in refunding the European Loan)	4%	June 1,1925	36,100,158.05
Convertible Gold	4 1/2%	July 1,1932	50,000,000
General & Refunding, Series A	4 1/2%	Jan. 1,2014	43,089,000
General & Refunding, Convertible, Series B	5%	Jan. 1,2014	29,141,300

Bonds in the Hands of the Public and in the Insurance Fund on December 31, 1917	$383,044,954.66
Bonds in the Treasury or due from Trustees on December 31, 1917	107,259,200.00
Total Bonds issued on December 31, 1917.	$490,304,154.66

1. Annual Report, 1917.

TABLE XVI.

THE CHANGES IN THE PROPERTY ACCOUNT [1]
FROM DECEMBER 31, 1917 TO DECEMBER 31, 1920.

Cost of Road and Equipment on December 31, 1917.			$504,578,835.94
Additions:			
Improvements and Additions to the Property:			
Rolling Stock		$39,090,126.68	
Less Equipment sold, destroyed, taken down, and removed from Inventory.		8,405,845.34	
		$20,884,281.34	
New Branches and Extensions		272,058.42	
Construction of Extra Main Track, reducing Grade and improving Line		152,860.92	
Other Additions and Betterments.			
Big Items:			
Land for Transportation Purposes	$ 491,000.08		
Bridges, Trestles & Culverts	1,891,659.12		
Grading	1,355,387.78		
Right-of-Way Fences	144,281.13		
Ties	226,879.36		
Rails	828,995.91		
Other Track Material	685,619.60		
Track Laying & Surfacing	743,542.54		
Station & Office Buildings	779,840.17		
Shop Machinery	882,514.77		
Water & Fuel Stations, Shops, and Engine House	1,631,149.08		
Signals & Interlockers	1,128,965.37		
Power Stations, Transmission Systems, etc.	5,115,657.03		
Paving & Assessments	310,575.59		
Ballast	189,398.14		
Elevator Structures	42,395.38		
Miscellaneous	1,503,230.92		$39,088,497.53
Acquisition of Six Controlled Railroads:			
Tacoma Eastern Railroad		$ 5,335,896.60	
Gallatin Valley Ry.		1,885,988.98	

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cont.

FROM DECEMBER 31, 1917 TO DECEMBER 31, 1920.[1]

Cost of Road and Equipment on December 31, 1917.				$604,578,835.94
Additions:				
Improvements and Additions to the Property:				
Rolling Stock		$39,090,126.68		
Less Equipment sold, destroyed, taken down, and removed from Inventory.		8,405,845.34		
		$30,684,381.34		
New Branches and Extensions		272,058.42		
Construction of Extra Main Track, reducing Grade and improving Line		153,860.92		
Other Additions and Betterments.				
Big Items:				
Land for Transportation Purposes	$ 491,000.08			
Bridges, Trestles & Culverts	1,891,659.12			
Grading	1,355,387.78			
Right-of-Way Fences	144,281.13			
Ties	228,878.38			
Rails	828,995.91			
Other Track Material	685,619.80			
Track Laying & Surfacing	743,543.54			
Station & Office Buildings	779,840.17			
Shop Machinery	882,514.77			
Water & Fuel Stations, Shops, and Engine House	1,631,149.08			
Signals & Interlockers	1,128,965.37			
Power Stations, Transmission Systems, etc.	5,115,857.03			
Paving & Assessments	310,575.59			
Ballast	189,398.14			
Elevator Structures	42,395.38			
Miscellaneous	1,503,230.92		$39,086,497.56	
Acquisition of Six Controlled Railroads:				
Tacoma Eastern Railroad		$ 5,335,886.60		
Gallatin Valley Ry.		1,895,988.98		
Puget Sound & Willapa Harbor Railway		3,294,410.64		
Seattle, Port Angeles & Western Railway		2,488,160.84		
Bellingham & Northern Railway		2,384,467.79		
Milwaukee Terminal Ry.		1,050,923.88	16,348,378.65	
Total Additions			$55,434,876.21	
Deductions:				
Credits representing Property taken down, destroyed, etc. and withdrawn from Inventory.			1,856,550.68	
Net Additions				53,578,325.53
Cost of Road and Equipment on December 31, 1920.				$658,157,161.47

1. Annual Reports, 1918, 1919, and 1920.

TABLE XVII.

CHANGES IN THE FUNDED DEBT FROM DECEMBER 31, 1917 TO DECEMBER 31, 1920.[1]

Bonds in the Hands of the Public and in the Insurance Fund on December 31, 1917.			$ 383,044,854.88
Bonds in the Treasury or due from Trustees on December 31, 1917.			107,259,300.00
Total Funded Debt on December 31, 1917.			$ 490,304,154.88
Increased by:			
General & Refunding Bonds issued for:			
Improvements to the Property		$ 9,858,000	
Tacoma Eastern Railroad Bonds assumed		984,000	
Bellingham & Northern Railway Bonds assumed		515,000	
Equipment Gold Notes		16,444,500	
United States Note		20,000,000	
Gold 4's		563,866.81	48,365,166.81
			$ 538,669,321.47
Decreased by:			
Underlying Bonds redeemed and cancelled:			
Dakota & Great Southern Railway	$ 4,000		
Dubuque Division	4,261,000		
Wisconsin Valley Division	1,747,000		
LaCrosse & Davenport Division	2,500,000		
Bellingham & Northern Railway	31,000	$ 8,543,000	
15 year European Loan 4's refunded		563,866.81	9,106,866.81
Total Funded Debt on December 31, 1920.			$ 529,562,454.66
Consisting of:			
Funded Debt in the Hands of the Public and in the Insurance Fund		$412,315,454.88	
Bonds in the Treasury or due from Trustees		117,317,300.00	

1. Annual Reports, 1918 to 1920 inclusive.

TABLE XVIII.

THE FUNDED DEBT ON DECEMBER 31, 1920.[1]

Description of Security	Rate	Due	Amount Issued
Chicago & Pacific Western Division	5%	Jan. 1,1921	$ 25,340,000
Wisconsin & Minnesota Division	5%	July 1,1921	4,755,000
Fargo & Southern Railway	5%	Jan. 1,1924	1,250,000
Chicago & Lake Superior Division	5%	July 1,1921	1,360,000
Chicago & Missouri River Division	5%	July 1,1926	3,083,000
General Mortgage, Series A	4%	May 1,1989	49,000,000
General Mortgage, Series B	3 1/2%	May 1,1989	8,950,000
General Mortgage, Series C	4 1/2%	May 1,1989	43,597,000
Milwaukee & Northern Railroad	4 1/2%	June 1,1934	2,155,000
Milwaukee & Northern Consolidated	4 1/2%	June 1,1934	5,092,000
Tacoma Eastern Railroad	5%	Jan. 1,1923	284,000
Bellingham & Northern Railway	5%	Dec. 1,1932	484,000
Chicago, Milwaukee & Puget Sound Railway	4%	Jan. 1,1949	27,175,000
25 year Gold	4%	July 1,1934	33,389,000
15 year European Loan	4%	June 1,1925	12,513,529.80
Gold	4%	June 1,1925	35,683,824.86
Convertible Gold	4 1/2%	July 1,1932	50,000,000
General & Refunding, Series A	4 1/2%	Jan. 1,2014	43,089,000
General & Refunding Convertible, Series B	5%	Jan. 1,2014	29,141,300
United States Note	6%	March 1,1930	20,000,000
Equipment Gold Notes	5%	Jan.15,1935	18,444,500

Funded Debt in the Hands of the Public and in the Insurance Fund on December 31,1920 — $412,315,454.66

Bonds in the Treasury or due from the Trustees on December 31, 1920:

General & Refunding Bonds	$117,217,200	
Tacoma Eastern Railroad	30,000	117,247,200.

Total Funded Debt on December 31, 1920. — $529,562,654.66

1. Annual Report, 1920.

TABLE XIX.

THE CHANGES IN THE PROPERTY ACCOUNT
FROM DECEMBER 31, 1920 TO DECEMBER 31, 1924.[1]

Cost of Road and Equipment on December 31, 1920.		$558,157,161.47
Less Miscellaneous Physical Property		2,931,201.02
		$555,225,960.02
Additions:		
Rolling Stock	$43,968,405.14	
Less Equipment destroyed, taken down, etc. and withdrawn from Inventory	12,869,546.99	
	$31,098,858.15	

Improvements and Additions to the Fixed Property:

Big Items:

Land for Transportation purposes (net)	$ 628,266.20
Right-of-Way Fences etc.	64,916.17
Grading	790,384.46
Elevated Structures	56,592.18
Bridges, Trestles, & Culverts	1,479,295.48
Rails	780,042.58
Ties	268,181.72
Other Track Materials	938,364.91
Crossings & Signs	521,576.85
Stations & Office Bldgs.	1,315,175.26
Water & Fuel Stations, Shops, & Engine Houses	982,105.61
Signals & Interlockers (net)	98,567.98

&

TABLE XX.

CHANGES IN THE FUNDED DEBT FROM DECEMBER 31,1920 TO DECEMBER 31,1924.[1]

Funded Debt in the Hands of the Public and In the Insurance Fund on December 31,1920.			$412,345,454.66
Bonds in the Treasury or due from the Trustees			117,217,200.00
Total Funded Debt on December 31, 1924.			$529,562,654.66
Increased by:			
United States Note, due March 1,1922		$25,340,000	
United States Note, due March 1,1927		25,000,000	
United States Note, due March 1,1923		10,000,000	
United States Note, due March 1,1930		10,000,000	
Equipment Trust Certificates, Series A		8,085,000	
Equipment Trust Certificates, Series B		1,536,000	
Equipment Trust Certificates, Series C		13,500,000	
10 year Security Gold Loan of 1924		14,000,000	
General 5's issued to the Treasury		43,000,000	
Gold 4's		681,314.19	151,142,314.19
			$680,704,968.85
Decreased by:			
Underlying Bonds redeemed and cancelled:			
Chicago & Pacific Western Division	$25,340,000		
Wisconsin & Minnesota Division	4,755,000		
Chicago & Lake Superior Division	1,360,000		
Fargo & Southern Railway	1,250,000		
Bellingham & Northern Railway	29,000		
Tacoma Eastern Railroad	884,000	$33,618,000	
15 Year European Loan 4's refunded		681,314.19	
United States Note, due March 1, 1922		25,340,000	
United States Note, due March 1,1923		10,000,000	
Equipment Trust Certificates paid:			
Equipment Gold Notes	$ 4,759,500		
Equipment Trust Certificates, Series A	1,078,000		
Equipment Trust Certificates, Series B	128,000		
Equipment Trust Certificates, Series C	900,000	6,865,500	76,504,814.19
Total Funded Debt on December 31, 1924			$604,200,154.66

Consisting of:

Funded Debt in the Hands of the Public and in the Insurance Fund	$443,882,796.42
Bonds in the Treasury or due from Trustees	160,317,358.24

1. Annual Reports, 1921 to 1924 inclusive.

TABLE XXI.

THE FUNDED DEBT ON DECEMBER 31, 1924.[1]

Description of Security	Rate	Due	Public	Insurance Fund	Treasury
Chicago & Missouri River Division	5%	July 1,1926	$3,083,000		
Milwaukee & Northern Railroad	4 1/2%	June 1,1934	2,117,000	$ 38,000	
Milwaukee & Northern Consolidated	4½%	June 1,1934	5,072,000	20,000	
Bellingham & Northern Railway	5%	Dec. 1,1932	455,000		
General Mortgage, Series A	4%	May 1,1989	48,241,000	759,000	
General Mortgage, Series B	3½%	May 1,1989	8,950,000		
General Mortgage, Series C	4½%	May 1,1989	42,597,000		
General Mortgage, Series D	5%	May 1,1989			$ 43,000,000
Chicago, Milwaukee & Puget Sound Railway	4%	Jan.1,1949	25,175,000	1,000,000	
25-year Gold	4%	July 1,1934	33,286,000	83,000	
15-year European Loan	4%	June 1,1925	11,631,515.42		
Gold	4%	June 1,1925	55,100,000	1,344,981	158.24
Convertible Gold	4½%	July 1,1932	49,880,800	19,200	
General & Refunding, Series A	4½%	Jan.1,2014	45,089,000		
General & Refunding, Convertible Series B	5%	Jan.1,2014	29,129,800	11,500	
General & Refunding, Series Z	6%	Jan.1,2014			117,317,200.
United States Note	6%	Mar.1,1930	20,000,000		
United States Note	6%	Mar.1,1927	25,000,000		
United States Note	6%	Mar.1,1930	10,000,000		
Equipment Gold Notes	6%	Jan.15,1935	11,685,000		
Equipment Trust Certificates, Series A	5%	July 15,1937	7,007,000		
Equipment Trust Certificates, Series B	5%	Feb.1,1935	1,408,000		
Equipment Trust Certificates, Series C	5½%	Apr.1,1938	12,600,000		
10-year Security Gold Loan of 1924	6%	Jan.1,1934	14,000,000		
Totals			$440,807,115.42	$3,175,981	$160,317,358.24

Note: on this date there was outstanding in addition to the above $48,356,400 Terre Haute obligations and $3,000,000 Gary bonds upon which the St. Paul had assumed a contingent liability.

1. Annual Report, 1924.

TABLE XXII.

THE RETURN ON INCREASE IN INVESTMENT.[1]
THE AVERAGE OF 1908-11 TO THE AVERAGE 1923-24.

Item	St. Paul	Northern Pacific	Great Northern	Burlington	North Western	Total
Miles Operated, Average 1908-1911	7,513	6,168	6,989	9,040	7,661	37,371
Average 1923-1924	10,988	6,675	8,253	9,403	8,463	43,787
Increase for the Period	3,475	507	1,264	363	802	6,416
(Figures in Thousands)						
Investment in Property devoted to Railroad Purposes, Average 1908-1911	$277,348	$368,892	$338,861	$455,807	$265,097	$1,646,805
Average 1923-1924	694,760	547,542	460,727	557,777	477,570	2,769,176
Increase for the Period	$417,412	$178,650	$121,866	$101,970	$212,473	$1,122,371
Net Earnings from Railroad Property per Year, Average for 1908-1911	$ 16,804	$ 26,803	$ 19,318	$ 21,635	$ 18,303	$ 102,880
Average for 1923-1924	19,432	19,307	24,992	27,598	17,034	108,383
Increase per Year	$ 2,628	*$7,496	$ 5,674	$ 5,963	*$ 1,269	$ 5,503
Rates of Return of Increase in Net Income on Investment.	.06%	* 4.2%	4.6%	3.1%	* .6%	.5%
Other Income (Dividends, etc.) Less Deductions, Average 1923-1924	$ 317	$9,958	$ 9,781	$ 1,445	$ 3,067	$ 23,982
Interest Paid per Year, Average 1923-1924	$ 19,946	$ 14,738	$ 16,768	$ 8,449	$ 11,887	$ 71,788
Dividends Paid per Year, Average 1923-1924	--	12,400	12,474	17,084	7,374	(a)32,729
Total Interest and Dividends	$ 19,946	$ 27,138	$ 29,242	$ 25,533	$ 19,261	$(a)104,517
Surplus per Year, Average 1923-1924	* $ 831	$ 2,186	$ 5,531	$ 3,511	$ 830	$ 11,157

*Deficit.
(a) Excludes dividends paid by the Burlington to the Great Northern and Northern Pacific.

1. Coverdale & Colpitts, p.30.

TABLE XXIII.

THE SAVINGS RESULTING FROM ELECTRIFICATION.[1]

Harlowton to Avery

	Volume of traffic gross-ton miles, freight and passenger	Net savings by electrification
Year 1916	* 1,639,054,000	* $ 1,098,186
Year 1917	2,677,097,000	1,641,369
Year 1918	2,759,178,000	1,734,867
Year 1919	2,894,063,000	1,688,037
Year 1920	2,710,745,000	1,679,623
Year 1921	1,792,714,000	858,651
Year 1922	2,109,868,000	996,485
Year 1923	2,247,102,000	1,152,508
Year 1924	2,129,426,000	1,018,721
Total		$11,868,447

Othello to Tacoma

Year 1916	--	--
Year 1917	--	--
Year 1918	--	--
Year 1919	--	--
Year 1920	(a) 691,674,000	(a)$ 249,003
Year 1921	684,238,000	12,363
Year 1922	734,121,000	103,301
Year 1923	748,405,000	119,285
Year 1924	691,476,000	47,808
Total		$ 531,760

All Electrified Sections

Year 1916	1,639,054,000	$ 1,098,186
Year 1917	2,677,097,000	1,641,369
Year 1918	2,759,178,000	1,734,867
Year 1919	2,894,063,000	1,688,037
Year 1920	3,402,419,000	1,928,626
Year 1921	2,476,952,000	871,014
Year 1922	2,843,989,000	1,099,786
Year 1923	2,995,507,000	1,271,793
Year 1924	2,820,902,000	1,066,529
Total		$12,400,207

*Tonnage and savings for six and one half months.
(a)Tonnage and savings for nine months.

1. 131 I.C.C., p.251. Chronicle, vol.120, p.1085.

TABLE XXIV.

PASSENGER TRAFFIC.[1]

Year	Number of Revenue Passengers (Thousands)	Passenger Miles per Mile of Road (Thousands)	Total Passenger Revenue (Thousands)	Average Revenue per Passenger	Average Distance Carried, Miles	Average Revenue per Passenger per Mile (cents)
1906	$11,190	69	$ 11,123	$0.99	44.5	2.23
1907	12,246	75	12,102	0.99	44.9	2.20
1908	11,234	83	11,883	0.83	43.5	1.92
1909	15,251	90	12,775	0.84	44.2	1.90
1910	18,185	98	15,782	0.87	45.4	1.98
1911	17,379	88	15,082	0.90	48.4	1.87
1912	14,890	83	16,569	1.11	53.1	2.09
1913	16,124	90	18,457	1.14	53.4	2.14
1914	16,425	94	18,961	1.15	55.4	2.08
1915	16,065	85	17,952	1.12	55.4	2.09
1916	15,969	90	19,757	1.24	57.7	2.14
1917	15,464	98	21,330	1.38	63.3	2.17
1918	13,175	86	23,492	1.78	67.2	2.65
1919	15,511	105	30,292	1.98	72.2	2.71
1920	15,919	99	31,034	1.95	66.0	2.95
1921	14,241	76	26,915	1.89	57.4	3.29
1922	13,609	68	24,261	1.78	55.8	3.19
1923	13,580	72	24,176	1.78	58.1	3.07
1924	11,951	65	21,768	1.82	59.5	3.06

1. Coverdale & Colpitts, p. 173.

TABLE XXV.

FREIGHT DENSITY.[1]

Average Freight Density of Recent Years of the St. Paul and its Principal Competitors.
(Figures in Thousands)

Item	1921	1922	1923	1924
St.Paul Lines East			1,139	
St.Paul Lines West			937	
St.Paul System	786	981	1,053	1,002
Northern Pacific	794	907	1,028	980
Great Northern	703	833	1,081	981
Burlington	1,124	1,251	1,350	1,303
North Western	808	902	1,093	980

Average Freight Density of 1911, 1912, and 1913 as Compared with 1922, 1923, and 1924.
(Figures in Thousands)

Item	Average of 1911,1912, and 1913	Average of 1922,1923, and 1924	Increase
St. Paul	761	1,015	34%
Northern Pacific	880	972	10%
Great Northern	859	958	12%
Burlington	865	1,308	50%
North Western	715	992	39%

Freight Traffic Density of the Through Lines of the St.Paul, Northern Pacific, and Great Northern between St. Paul and Seattle in 1923.

St.Paul	Eastbound	1,513,000	79%
	Westbound	408,000	21%
	Total	1,921,000	100%
Northern Pacific	Eastbound	2,082,000	74%
	Westbound	731,000	26%
	Total	2,813,000	100%
Great Northern	Eastbound	1,853,000	77%
	Westbound	561,000	23%
	Total	2,414,000	100%

1. Coverdale & Colpitts, p.137.

TABLE XXVI.

PASSENGER DENSITY.[1]

Average Passenger Density of Recent Years of the St. Paul and its Principal Competitors. (Figures in Thousands)

Item	1921	1922	1923	1924
St. Paul Lines East			90	
St. Paul Lines West			50	
St. Paul System	78	69	72	65
Northern Pacific	76	73	72	62
Great Northern	59	54	56	51
Burlington	106	100	103	97
North Western	141	138	133	130

Average Passenger Density of 1911, 1912, and 1913 as Compared with 1922, 1923, and 1924. (Figures in Thousands)

Item	Average of 1911, 1912, and 1913	Average of 1922, 1923, and 1924	Decrease
St. Paul	87	69	21%
Northern Pacific	114	69	40%
Great Northern	78	54	31%
Burlington	125	100	20%
North Western	138	130	6%

Passenger Traffic Density of the Through Lines of the St. Paul, Northern Pacific, and Great Northern between St. Paul and Seattle in 1923. (Figures in Thousands)

St. Paul	Eastbound	52
	Westbound	53
	Total	105
Northern Pacific	Eastbound	89
	Westbound	89
	Total	178
Great Northern	Eastbound	54
	Westbound	49
	Total	103

1. Coverdale & Colpitts, p. 171.

TABLE XXVII.

COMPARATIVE TABLE SHOWING CAPITALIZATION AND INTEREST CHARGES.[1]

(The Original Plan as of June 1,1925)

	Present Capitalization	Present Fixed Interest Charges	Capitalization Giving Effect to Reorganization Plan	Fixed Interest Charges Giving Effect to Reorganization Plan
Undisturbed Bonds	$181,370,400	$ 8,431,904	$181,370,400	$ 8,431,904
Timber Loan to be liquidated	2,200,000	110,000		
Notes held by U.S. Government to be paid, compromised, or settled	55,000,000	3,300,000		
Bonds to be exchanged	230,950,796	9,994,889		
50-year 5% Mortgage Gold Bonds			60,698,820	3,034,941
Adjustment Mortgage Bonds			230,950,796	
Preferred Stock	115,931,900		115,931,900	
Common Stock	117,411,300		117,411,300	
	$702,864,396	$21,836,793	$706,363,216	$11,466,845

1. The Plan, p. 20.

TABLE XXVIII.

SCHEDULE OF PARTICIPATION IN DISTRIBUTION OF NEW SECURITIES BY HOLDERS OF EXISTING SECURITIES PARTICIPATING IN THE PLAN.*
(According to the Modified Plan.)

Existing Securities		Cash Adjustment of Interest to February 1,1925		New 50 Year 5% Mortgage Gold Bonds		New 5% Adjustment Mortgage Bonds		New Preferred Stock		New Common Stock	
Amount	Description	Per $1000 Bond	Total Amount	Per Cent.	Amount	Per Cent.	Amount	Per Cent.	Amount	Per Cent.	Amount
$11,831,515	European Loan Bonds	$6.66⅔	$78,876.76	20	$2,366,303	80	$ 9,465,212				
36,344,981	4% Bonds, due 1925	6.66⅔	242,299.88	20	7,268,996	80	29,075,985				
50,000,000	4½% Bonds, due 1934	7.50	375,000.00	20	10,000,000	80	40,000,000				
33,369,000	4% Bonds, due 1934	3.33⅓	111,230.00	20	6,673,000	80	26,695,200				
27,175,000	Puget Sound Bonds	3.33⅓	90,583.33	20	5,435,000	80	21,740,000				
43,089,000	General & Refunding Bonds, Series A	15.00	646,335.00	20	8,617,800	80	34,471,200				
29,141,300	General & Refunding Bonds, Series B			20	5,828,260	80	23,313,040				
115,931,900	Preferred Stock			24	27,823,656			100	$115,931,900		
117,411,300	Common Stock			28	32,875,164					100	1,174,113 shares

*Other than the three 6% notes held by the United States Government. The Plan, p.7. Chronicle, vol.121, p.2516.

TABLE XXIX.

THE FUNDED DEBT AFTER THE REORGANIZATION.[1]

Description of Security	Rate	Due	In Hands of Public
Bellingham & Northern Railway Co.	5%	Dec. 1, 1923	$ 390,000
Milwaukee & Northern Railroad Company	4½%	June 1, 1934	2,117,000
Milwaukee & Northern Rail-Road Company, Consolidated	4½%	June 1, 1934	5,072,000
General Mortgage, Series A	4%	May 1, 1989	48,241,000
General Mortgage, Series B	3½%	May 1, 1989	8,950,000
General Mortgage, Series C	4¾%	May 1, 1989	42,587,000
Ten Year Security Gold Loan of 1924	6%	Jan. 1, 1934	14,000,000
Equipment Gold Notes	6%	Jan. 15, 1935	8,754,000
Equipment Trust Certificates, A	5%	July 15, 1937	5,390,000
Equipment Trust Certificates, B	5%	Feb. 1, 1935	1,024,000
Equipment Trust Certificates, C	5½%	Apr. 1, 1938	9,900,000
Equipment Trust Certificates, D	5%	Apr. 1, 1940	8,034,000
Fifty Year Mortgage Bonds, Series A	5%	Feb. 1, 1975	106,395,098
Adjustment Mortgage Bonds, Series A	5%	Jan. 1, 2000	*182,873,693
Total			$443,747,769

*Convertible into preferred and common stock.

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1. All but the last two figures were as of December 31, 1927, as given in 1927 Statistics of Operation of the C.M. & St.P.Ry. (receivers' report which was put out in place of the company's annual reports to the stockholders). The last two figures were the amounts called for by the plan in order to meet the disturbed obligations outstanding as of June 30, 1927. The equipment trust notes above were due in annual installments. The maturity date of the last installments in each series appears in the table.

BIBLIOGRAPHY.

Annual Reports of the Chicago, Milwaukee & St. Paul Railway Company to the Stockholders, 1891 to 1924 inclusive.

Cary, John W., "The Organization and History of the Chicago, Milwaukee & St. Paul Railway Company." (Press of Cramer, Aikens & Cramer, Milwaukee, Wisconsin.)

Cleveland, Frederick H. and Powell, Fred, "Railroad Finance" (1912).

Commercial and Financial Chronicle.
Note: the chief source of material in this periodical consisted of the items pertaining to the road in the "General Investment News Section" from 1891 to 1926 inclusive. However, in tracing the history of the companies, whose lines were acquired by the St. Paul during this period, earlier issues than those for 1891 furnish additional sources. Furthermore, very frequently material was secured from one of the supplements, "Investors' Supplement."

Coverdale & Colpitts (Consulting Engineers, New York.) "Report on the Chicago, Milwaukee & St. Paul Railway Company," Submitted to H. E. Byram, President, March 18, 1925.

Guaranty Trust Company of New York and Merrel P. Callaway, Trustee, Complainants, vs. Chicago, Milwaukee & St. Paul Railway Company and others, Defendants, in Equity Consolidated Cause No. 4031:

Stenographic Minutes of Testimony and Exhibits.
"Brief on behalf of the holders of over 80% of the bonds of the railway company on (1) the petition of intervention of the so-called 'bondholders defense committee' and (2) the motion of the complainant trustees to fix the date of sale and upset prices."
"Reply brief for bondholders' defense committee on motion of trustees to fix the time of sale and upset price."
"Petition containing objections of bondholders' defense committee to confirmation of sale and proposed plan of reorganization."
"Final Report of Receivers and Petition for Discharge" (Dated February 13, 1928, and filed February 27, 1928).

Interstate Commerce Commission:-

"Statement of H. E. Byram, President, C.M. & St.P. Ry.Co. before Interstate Commerce Commission, December 1, 1925."
"Investigation of Chicago, Milwaukee & St. Paul Railway Company" (No. 1701).
"Reply Brief on behalf of committees of security holders of northwestern railroads" (Docket No. 17,000).
"Brief of a committee of preferred and common stockholders known as the Iselin committee" (Finance Docket No. 6240).
"Chicago, Milwaukee & St. Paul Reorganization" (Finance Docket No. 6240).

Kuhn, Loeb & Company and the National City Company, New York (Reorganization Managers) "Reorganization of the Chicago, Milwaukee & St. Paul Railway Company, Plan and Agreement, dated June 1, 1925, with Modifications, dated November 19, 1925."

Lisman, F. J. and Company, New York, "Chicago, Milwaukee & St. Paul, Analysis" (Pamphlet, March, 1917).

Myers, P. M., "General Deeds and Certain Documents, Chicago, Milwaukee & St. Paul Railway Company." (Compiled by P. M. Myers, Secretary, January 1, 1903.)

Poor's Manual, Railroads, 1891 to 1927 inclusive.
Note: this manual was used in a manner similar to the Commercial and Financial Chronicle.

Pyle, Joseph Gilpin, "The Life of James J. Hill," volume 2 (1917).

Riegel, Robert E., "Western Railroads" (1926).

Roosevelt and Son, New York, "Chicago, Milwaukee & St. Paul Railway and the Northwestern Situation" (Pamphlet, June, 1925).

Spearman, Frank, "The Strategy of Great Railroads" (1904).

Statistics of Operation of the Chicago, Milwaukee & St. Paul Railway (for the fiscal years ending December 31, 1925, 1926, and 1927).

The list above contains only the chief printed sources of information which were drawn upon by the writer. There are many other sources of minor importance, so far as their use in the preparation of this history was concerned, such as the Railway Review, Minneapolis Tribune, Minneapolis Journal, etc. These references are cited in the body of the history. Also numerous letters the writer received in reply to his inquiries of numerous parties in the course of preparation of this history furnish a material of considerable importance. Besides, at the company's central offices in Chicago various records were placed at the writer's disposal. The cooperation of the accounting department was obtained in securing certain information for the company's old records pertaining to operations during the early periods reviewed in this history.

Furthermore the writer did not rely on printed material alone as to outside sources of material. In numerous interviews with men, some of whom were connected with the St. Paul, especially Mr. H. H. Field, and some of whom were interested in but not connected with the road, the writer secured important information much of which could not have been secured from printed sources.