

WISCONSIN RAILROADS.

BY HON. H. H. GILES.

The territory of Wisconsin offered great advantages to emigrants. Explorers had published accounts of the wonderful fertility of its soil, the wealth of its broad prairies and forest openings, and the beauty of its lakes and rivers. Being reached from the older states by way of the lakes and easily accessible by a long line of lake coast, the hardships incident to weeks of land travel were avoided. Previous to 1836 but few settlements had been made in that part of the then territory of Michigan, that year organized into the territory of Wisconsin, except as mining camps in the southwestern part, and scattered settlers in the vicinity of the trading posts and military stations. From that time on, with the hope of improving their condition, thousands of the enterprising yeomanry of New England, New York and Ohio started for the land of promise. Germans, Scandinavians and other nationalities, attracted by the glowing accounts sent abroad, crossed the ocean on their way to the new world; steamers and sail-craft laden with families and their household goods left Buffalo and other lake ports, all bound for the new Eldorado. It may be doubted if in the history of the world any country was ever peopled with the rapidity of southern and eastern Wisconsin. Its population in 1840 was 30,749; in 1850, 304,756; in 1860, 773,693; in 1870, 1,051,351; in 1875, 1,236,729. With the development of the agricultural resources of the new territory, grain raising became the most prominent interest, and as the settlements extended back from the lake shore the difficulties of transportation of the products of the soil were seriously felt. The expense incurred in moving a load of produce seventy or eighty miles to a market town on the lake shore frequently exceeded the gross sum obtained for the same. All goods, wares and merchandise, and most of the lumber used must also be hauled by teams from Lake Michigan. Many of our early settlers still retain vivid recollections of trying experiences in the Milwaukee woods and other sections bordering on the lake shore, from the south line of the state to Manitowoc and Sheboygan. To meet the great want—better facilities for transportation—a valuable land grant was obtained from congress, in 1838, to aid in building a canal from Milwaukee to Rock river. The company which was organized to construct it, built a dam across Milwaukee river and a short section of the canal; then the work stopped and the plan was finally abandoned. It was early seen that to satisfy the requirements of the people, railroads, as the most feasible means of communication within their reach, were an indispensable necessity.

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY.

Between the years 1838 and 1841, the territorial legislature of Wisconsin chartered several railroad companies, but with the exception of the "Milwaukee & Waukesha Railroad Company," incorporated in 1847, none of the corporations thus created took any particular shape. The commissioners named in its charter met November 23, 1847, and elected a president, Dr. L. W. Weeks, and a secretary, A. W. Randall (afterward governor of Wisconsin). On the first Monday of February, 1848, they opened books of subscription. The charter of the company provided

that \$100,000 should be subscribed and five per cent. thereof paid in before the company should fully organize as a corporation. The country was new. There were plenty of active, energetic men, but money to build railroads was scarce, and not until April 5, 1849, was the necessary subscription raised and percentage paid. A board of directors was elected on the 10th day of May, and Byron Kilbourn chosen president. The charter had been previously amended, in 1848, authorizing the company to build a road to the Mississippi river, in Grant county, and in 1850, its name was changed to the "Milwaukee & Mississippi Railroad Company." After the company was fully organized, active measures were taken to push the enterprise forward to completion. The city of Milwaukee loaned its credit, and in 1851 the pioneer Wisconsin railroad reached Waukesha, twenty miles out from Milwaukee. In the spring of 1852, Edward H. Broadhead, a prominent engineer, from from the state of New York, was put in charge of the work as chief engineer and superintendent. Under his able and energetic administration the road was pushed forward in 1852 to Milton, in 1853 to Stoughton, in 1854 to Madison, and in 1856 to the Mississippi river, at Prairie du Chien. In 1851 John Catlin of Madison, was elected president in place of Kilbourn.

The proposed length of this article will not admit of any detailed statement of the trials, struggles and triumphs of the men who projected, and finally carried across the state, from the lake to the river, this first Wisconsin railroad. Mitchell, Kilbourn, Holtón, Tweedy, Catlin, Walker, Broadhead, Crocker and many others, deserve to be remembered by our people as benefactors of the state. In 1859 and 1860, the company defaulted in the payment of the interest on its bonds. A foreclosure was made and a new company, called the "Milwaukee & Prairie du Chien," took its place, succeeding to all its rights and property.

The "Southern Wisconsin Railway Company" was chartered in 1852, and authorized to build a road from Milton to the Mississippi river. When the Milwaukee and Mississippi road reached Milton in 1852, it was not authorized by its charter to go to Janesville, but, under the charter of the Southern Wisconsin, a company was organized that built the eight miles to Janesville in 1853. Under a subsequent amendment to the charter, the Milwaukee and Mississippi company was authorized to build from Milton to the Mississippi river. The Janesville branch was then purchased and extended to Monroe, a distance of about thirty-four miles, or forty-two miles west of Milton. Surveys were made and a line located west of Monroe to the river. The people of La Fayette and Grant counties have often been encouraged to expect a direct railroad communication with the city of Milwaukee. Other and more important interests, at least so considered by the railroad company, have delayed the execution of the original plan, and the road through the counties mentioned still remains unbuilt.

The "LaCrosse & Milwaukee Railroad Company" was chartered in 1852, to construct a road from LaCrosse to Milwaukee. During the year in which the charter was obtained, the company was organized, and the first meeting of the commissioners held at LaCrosse. Among its projectors were Byron Kilbourn and Moses M. Strong. Kilbourn was elected its first president. No work was done upon this line until after its consolidation with the "Milwaukee, Fond du Lac & Green Bay Railroad Company" in 1854. The latter company was chartered in 1853, to build a road from Milwaukee *via* West Bend to Fond du Lac and Green Bay. It organized in the spring of 1853, and at once commenced active operations under the supervision of James Kneeland, its first president. The city of Milwaukee loaned its credit for \$200,000, and gave city bonds. The company secured depot grounds in Milwaukee, and did considerable grading for the first twenty-five miles out. Becoming embarrassed in January, 1854, the Milwaukee, Fond du Lac & Green Bay consolidated with the LaCrosse & Milwaukee company. Work was at once resumed on the partially graded line. In 1855 the road was completed to Horicon, fifty miles.

The Milwaukee & Watertown company was chartered in 1851, to build from Milwaukee to Watertown. It soon organized, and began the construction of its line from Brookfield, fourteen miles west of Milwaukee, and a point on the Milwaukee & Mississippi road leading through Oconomowoc to Watertown. The charter contained a provision that the company might extend its road by way of Portage to La Crosse. It reached Watertown in 1856, and was consolidated with the LaCrosse & Milwaukee road in the autumn of the same year.

In the spring of 1856 congress made a grant of land to the state of Wisconsin, to aid in the building of a railroad from Madison, or Columbus, *via* Portage City, to the St. Croix river or lake, between townships 25 and 31. and from thence to the west end of Lake Superior, and to Bayfield. An adjourned session of the Wisconsin legislature met on September 3 of that year, to dispose of the grant. The disposal of this grant had been generally discussed by the press, and the public sentiment of the state seemed to tend toward its bestowal upon a new company. There is little doubt but that this was also the sentiment of a large majority of the members of both houses when the session commenced. When a new company was proposed a joint committee of twenty from the senate and assembly was appointed to prepare a bill, conferring the grant upon a company to be created by the bill itself. The work of the committee proceeded harmoniously until the question of who should be incorporators was to be acted upon, when a difference of opinion was found to exist, and one that proved difficult to harmonize. In the meantime the LaCrosse and Watertown companies had consolidated, and a sufficient number of the members of both houses were "propitiated" by "pecuniary compliments" to induce them to pass the bill, conferring the so called St. Croix grant upon the LaCrosse & Milwaukee railroad company. The vote in the assembly in the passage of the bill was, ayes 62, noes 7. In the senate it stood, ayes 17, noes 7.

At the session of the legislature of 1858 a committee was raised to investigate the matter, and their report demonstrated that bonds were set apart for all who voted for the LaCrosse bill; to members of assembly \$5,000 each, and members of senate \$10,000 each. A few months after the close of the legislative session of 1856 the land grant bonds of the LaCrosse road became worthless. Neither the LaCrosse company nor its successors ever received any portion of the lands granted to the state. During the year 1857 the LaCrosse company completed its line of road through Portage City to LaCrosse, and its Watertown line to Columbus.

The "Milwaukee & Horicon Railroad Company" was chartered in 1852. Between the years 1855 and 1857 it built through Waupun and Ripon to Berlin, a distance of forty-two miles. It was, in effect, controlled by the LaCrosse & Milwaukee company, although built as a separate branch. This line was subsequently merged in the LaCrosse company, and is now a part of the northern division of the Chicago, Milwaukee & St. Paul railway.

The "Madison, Fond du Lac & Lake Michigan Railroad Company" was chartered in 1855, to build a road from Madison *via* Fond du Lac to Lake Michigan. In 1857 it bought of the LaCrosse company that portion of its road acquired by consolidation with the Milwaukee & Watertown company. Its name was then changed to "Milwaukee & Western Railroad Company." It owned a line of road from Brookfield to Watertown, and branches from the latter place to Columbus and Sun Prairie, in all about eighty miles in length.

In 1858 and 1859 the La Crosse & Milwaukee and the Milwaukee & Horicon companies defaulted in the payment of the interest on their bonded debts. In the same years the bondholders of the two companies instituted foreclosure proceedings on the different trust deeds given to secure their bonds. Other suits to enforce the payment of their floating debts were also commenced. Protracted litigation in both the state and federal courts resulted in a final settlement in 1868, by a decision of the supreme court of the United States. In the meantime, in 1862 and

1863, both roads were sold, and purchased by an association of the bondholders, who organized the "Milwaukee & St. Paul Railway Company." The new company succeeded to all the rights of both the La Crosse and Horicon companies, and soon afterward, in 1863, purchased the property of the Milwaukee & Western company, thus getting control of the roads from Milwaukee to La Crosse, from Horicon to Berlin, from Brookfield to Watertown, and the branches to Columbus and Sun Prairie. In 1864 it built from Columbus to Portage, from Brookfield to Milwaukee, and subsequently extended the Sun Prairie branch to Madison, in 1869. It also purchased the Ripon & Wolf River road, which had been built fifteen miles in length, from Ripon to Omro, on the Fox river, and extended it to Winneconne on the Wolf river, five miles farther, and twenty miles from Ripon. In 1867 the Milwaukee & St. Paul railway company obtained control of the Milwaukee & Prairie du Chien railroad. The legislature of 1857 had passed an act, authorizing all stock-holders in all incorporated companies to vote on shares of stock owned by them. The directors of the Milwaukee & St. Paul company had secured a majority of the common stock, and, at the election of 1867, elected themselves a board of directors for the Prairie du Chien company. All the rights, property and interests of the latter company came under the ownership and control of the former.

In 1865, Alexander Mitchell, of Milwaukee, was elected president; and S. S. Merrill general manager of the Milwaukee & St. Paul railway company. They were retained in their respective positions by the new organization, and still continue to hold these offices, a fact largely owing to the able and efficient manner that has characterized their management of the company's affairs. The company operates eight hundred and thirty-four miles of road in Wisconsin, and in all two thousand two hundred and seven miles. Its lines extend to St. Paul and Minneapolis in Minnesota, and to Algona in Iowa, and over the Western Union to Savanna and Rock Island in the State of Illinois.

The "Oshkosh & Mississippi Railroad Company" was chartered in 1866 to build a road from the city of Oshkosh to the Mississippi river. Its construction to Ripon in 1872 was a move on the part of citizens of Oshkosh to connect their town with the Milwaukee & St. Paul road. It is twenty miles in length and leased to the Chicago, Milwaukee & St. Paul company.

In 1871 and 1872 the "Wisconsin Union Railroad Company," of which John W. Cary was president, built a road from Milwaukee to the state line between Wisconsin and Illinois, to connect with a road built from Chicago to the state line of Illinois. This new line between Milwaukee and Chicago was built in the interest of, and in fact by, the Milwaukee & St. Paul company to afford a connection between its Wisconsin, Iowa and Minnesota system of roads, and the eastern trunk lines centering in Chicago. It runs parallel with the shore of Lake Michigan and from three to six miles from it, and is eighty-five miles in length.

THE CHICAGO & NORTHWESTERN RAILWAY.

The territorial legislature of 1848 chartered the "Madison & Beloit Railroad Company" with authority to build a railroad from Beloit to Madison only. In 1850, by an act of the legislature, the company was authorized to extend the road to the Wisconsin river and La Crosse, and to a point on the Mississippi river near St. Paul, and also from Janesville to Fond du Lac. Its name was changed, under legislative authority, to the "Rock River Valley Union Railroad Company." In 1851, the line from Janesville north not being pushed as the people expected, the legislature of Illinois chartered the "Illinois & Wisconsin Railroad Company" with authority to consolidate with any road in Wisconsin. In 1855, an act of the Wisconsin legislature consolidated the Illinois and Wisconsin companies with the "Rock River Valley Union Railroad Company," and the new organization took the name of the "Chicago, St. Paul & Fond du Lac Rail-

road Company." In 1854, and previous to the consolidation, the company had failed and passed into the hands of the bondholders, who foreclosed and took stock for their bonds. The old management of A. Hyatt Smith and John B. Macy was superseded, and Wm. B. Ogden was made president. Chicago was all along deeply interested in reaching the rich grain fields of the Rock river valley, as well as the inexhaustible timber and mineral wealth of the northern part of Wisconsin and that part of Michigan bordering on Lake Superior, called the Peninsula. It also sought a connection with the upper Mississippi region, then being rapidly peopled, by a line of railroad to run through Madison to St. Paul, in Minnesota. Its favorite road was started from Chicago on the wide (six feet) gauge, and so constructed seventy miles to Sharon on the Wisconsin state line. This was changed to the usual (four feet, eight and one-half inches) width, and the work was vigorously pushed, reaching Janesville in 1855 and Fond du Lac in 1858. The Rock River Valley Union railroad company had, however, built about thirty miles from Fond du Lac south toward Minnesota Junction before the consolidation took place. The partially graded line on a direct route between Janesville and Madison was abandoned. In 1852 a new charter had been obtained, and the "Beloit & Madison Railroad Company" had been organized to build a road from Beloit *via* Janesville to Madison. A subsequent amendment to this charter had left out Janesville as a point, and the Beloit branch was pushed through to Madison, reaching that city in 1864.

The "Galena and Chicago Union Railroad Company" had built a branch of the Galena line from Belvedere to Beloit previous to 1854. In that year, it leased the Beloit & Madison road, and from 1856 operated it in connection with the Milwaukee & Mississippi, reaching Janesville by way of Hanover Junction, a station on its Southern Wisconsin branch, eight miles west of Janesville. The consolidation of the Galena & Chicago Union and the Chicago, St. Paul & Fond du Lac companies was effected and approved by legislative enactment in 1855, and a new organization called the "Chicago & Northwestern Railway Company" took their place.

The "Green Bay, Milwaukee & Chicago Railroad Company" was chartered in 1851 to build a road from Milwaukee to the state line of Illinois to connect with a road from Chicago, called the Chicago & Milwaukee railroad. Both roads were completed in 1855, and run in connection until 1863, when they were consolidated under the name of the "Chicago & Milwaukee Railroad Company." To prevent its falling into the hands of the Milwaukee & St. Paul, the Chicago & Northwestern secured it by perpetual lease, May 2, 1866, and it is now operated as its Chicago division.

The "Kenosha & Beloit Railroad Company" was incorporated in 1853 to build a road from Kenosha to Beloit, and was organized soon after its charter was obtained. Its name was afterward changed to the "Kenosha, Rockford & Rock Island Railroad Company," and its route changed to run to Rockford instead of Beloit. The line starts at Kenosha, and runs through the county of Kenosha and crosses the state line near the village of Genoa in the county of Walworth, a distance of thirty miles in the state of Wisconsin, and there connects with a road in Illinois running to Rockford, and with which it consolidated. Kenosha and its citizens were the principal subscribers to its capital stock. The company issued its bonds, secured by the usual mortgage on its franchises and property. Failing to pay its interest, the mortgage was foreclosed, and the road was sold to the Chicago & Northwestern company in 1863, and is now operated by it as the Kenosha division. The line was constructed from Kenosha to Genoa in 1862.

The "Northwestern Union Railway Company" was organized in 1872, under the general railroad law of the state, to build a line of road from Milwaukee to Fond du Lac, with a branch to Lodi. The road was constructed during the years 1872 and 1873 from Milwaukee to Fond du Lac. The Chicago & Northwestern company were principally interested in its being built, to

shorten its line between Chicago and Green Bay, and now uses it as its main through line between the two points.

The "Baraboo Air-Line Railroad Company" was incorporated in 1870, to build a road from Madison, Columbus, or Waterloo *via* Baraboo, to La Crosse, or any point on the Mississippi river. It organized in the interest of the Chicago & Northwestern, with which company it consolidated, and the work of building a connecting line between Madison and Winona Junction was vigorously pushed forward. Lodi was reached in 1870, Baraboo in 1871, and Winona Junction in 1874. The ridges between Elroy and Sparta were tunneled at great expense and with much difficulty. In 1874 the company reported an expenditure for its three tunnels of \$476,743.32, and for the 129 1-10 miles between Madison and Winona Junction of \$5,342,169.96, and a large expenditure yet required to be made on it. In 1867 the Chicago & Northwestern company bought of D. N. Barney & Co. their interest in the Winona & St. Peters railway, a line being built westerly from Winona in Minnesota, and of which one hundred and five miles had been built. It also bought of the same parties their interest in the La Crosse, Trempealeau & Prescott railway, a line being built from Winona Junction, three miles east of La Crosse, to Winona, Minn. The latter line was put in operation in 1870, and is twenty-nine miles long. With the completion of its Madison branch to Winona junction, in 1873, it had in operation a line from Chicago, *via* Madison and Winona, to Lake Kampeska, Minn., a distance of six hundred and twenty-three miles.

In the year 1856 a valuable grant of land was made by congress to the state of Wisconsin to aid in the construction of railroads. The Chicago, St. Paul & Fond du Lac company claimed that the grant was obtained through its efforts, and that of right it should have the northeastern grant, so-called. At the adjourned session of the legislature of 1856, a contest over the disposition of the grant resulted in conferring it upon the "Wisconsin & Superior Railroad Company," a corporation chartered for the express purpose of giving it this grant. It was generally believed at the time that the new company was organized in the interest of the Chicago, St. Paul & Fond du Lac company, and at the subsequent session, in the following year, it was authorized to consolidate with the new company, which it did in the spring of that year, and thus obtained the grant of 3,840 acres per mile along its entire line, from Fond du Lac northerly to the state line between Wisconsin and Michigan. It extended its road to Oshkosh in 1859, to Appleton in 1861, and in 1862 to Fort Howard, forming a line two hundred and forty-two miles long. The line from Fort Howard to Escanaba, one hundred and fourteen miles long, was opened in December, 1872, and made a connection with the peninsular railroad of Michigan. It now became a part of the Chicago & Northwestern, extending from Escanaba to the iron mines, and thence to Lake Superior at Marquette. Albert Keep, of Chicago, is president, and Marvin Hughitt, a gentleman of great railroad experience, is general superintendent. The company operates five hundred and sixty-seven miles of road in Wisconsin, and in all sixteen hundred and sixteen miles. Its lines extend into five different states. Over these lines its equipment is run in common, or transferred from place to place, as the changes in business may temporarily require.

WISCONSIN CENTRAL RAILROAD.

The "Milwaukee & Northern Railway Company" was incorporated in 1870, to build a road from Milwaukee to some point on the Fox river below Winnebago lake, and thence to Lake Superior, with branches. It completed its road to Menasha, one hundred and two miles from Milwaukee, with a branch from Hilbert to Green Bay, twenty-seven miles, in 1873, and in that year leased its line to the "Wisconsin Central Railroad Company," which is still operating it. In

1864 congress made a grant of land to the state of Wisconsin to aid in the construction of a railroad from Berlin, Doty's Island, Fond du Lac, or Portage, by way of Stevens Point, to Bayfield or Superior, granting the odd sections within ten miles on each side of the line, with an indemnity limit of twenty miles on each side. The legislature of 1865 failed to dispose of this grant, but that of 1866 provided for the organization of two companies, one to build from Portage City by way of Berlin to Stevens Point, and the other from Menasha to the same point, and then jointly to Bayfield and Lake Superior. The former was called the "Winnebago and Lake Superior Railroad Company," and the latter the "Portage & Superior Railroad Company." In 1869 an act was passed consolidating the two companies, which was done under the name of the "Portage, Winnebago & Superior Railroad Company." In 1871 the name of the company was changed to the "Wisconsin Central Railroad Company." The Winnebago & Lake Superior company was organized under Hon. George Reed as president, and at once commenced the construction of its line of road between Menasha and Stevens Point. In 1871 the Wisconsin Central consolidated with the "Manitowoc & Mississippi Railroad Company." The articles of consolidation provided that Gardner Colby, a director of the latter company, should be president, and that George Reed, a director of the former, should be vice president of the new organization; with a further provision that Gardner Colby, George Reed, and Elijah B. Phillips should be and remain its executive committee.

In 1871, an act was passed incorporating the "Phillips and Colby Construction Company," which created E. B. Phillips, C. L. Colby, Henry Pratt, and such others as they might associate with them, a body corporate, with authority to build railroads and do all manner of things relating to railroad construction and operation. Under this act the construction company contracted with the Wisconsin Central railroad company, to build its line of road from Menasha to Lake Superior. In November, 1873, the Wisconsin Central leased of the Milwaukee & Northern company its line of road extending from Schwartzburg to Menasha, and the branch to Green Bay, for the term of nine hundred and ninety-nine years, and also acquired the rights of the latter company to use the track of the Chicago, Milwaukee & St. Paul company between Schwartzburg and Milwaukee, and to depot facilities in Milwaukee. The construction of the land grant portion of this important line of road was commenced in 1871, and it was completed to Stevens Point in November of that year. It was built from Stevens Point north one hundred miles to Worcester in 1872. During 1872 and 1873, it was built from Ashland south to the Penoka iron ridge, a distance of thirty miles. The straight line between Portage City and Stevens Point, authorized by an act of the legislature of 1875, was constructed between October 1, 1875, and October, 1876, seventy-one miles in length. The gap of forty-two miles between Worcester and Penoka iron ridge was closed in June, 1877. E. B. Phillips, of Milwaukee, is president and general manager. This line of road passes through a section of our state hitherto unsettled. It has been pushed through with energy, and opened up for settlement an immense region of heavily timbered land, and thus contributed to the growth and prosperity of the state.

THE WESTERN UNION RAILROAD.

The "Racine, Janesville & Mississippi Railroad Company" was chartered in 1852, to build a road from Racine to Beloit, and was organized the same year. The city of Racine issued its bonds for \$300,000 in payment for that amount of stock. The towns of Racine, Elkhorn, Delavan and Beloit gave \$190,000, and issued their bonds, and farmers along the line made liberal subscriptions and secured the same by mortgages on their farms. The road was built to Burlington in 1855, to Delavan early in 1856, and to Beloit, sixty-eight miles from Racine, during the same year. Failing to meet the interest on its bonds and its floating indebtedness, it was sur-

rendered by the company to the bond-holders in 1859, who completed it to Freeport during that year, and afterward built to the Mississippi river at Savannah, and thence to Rock Island. The bond-holders purchased and sold the road in 1866, and a new organization was had as the "Western Union Railroad Company," and it has since been operated under that name. In 1869, it built a line from Elkhorn to Eagle, seventeen miles, and thus made a connection with Milwaukee over the Chicago, Milwaukee & St. Paul line. The latter company owns a controlling interest in its line. Alexander Mitchell is the president of the company, and D. A. Olin, general superintendent.

WEST WISCONSIN RAILROAD.

The lands granted by congress in 1856 to aid in the construction of a railroad in Wisconsin, from Tomah to Superior and Bayfield, were disposed of as mentioned under the history of the Chicago, Milwaukee & St. Paul company. The La Crosse company, as we have seen, prevailed in the legislature of 1856, and secured legislation favorable to its interests; but it failed to build the line of road provided for, and forfeited its right to lands granted. In 1863, the "Tomah & Lake St. Croix Railroad Company" was incorporated, with authority to construct a railroad from some point in the town of Tomah in Monroe county, to such point on Lake St. Croix, between townships 25 and 31 as the directors might determine. To the company, by the act creating it, was granted all the interest and estate of this state, to so much of the lands granted by the United States to the state of Wisconsin, known as the St. Croix grant, as lay between Tomah and Lake St. Croix. A few months after its organization, the company passed substantially into the hands of D. A. Baldwin and Jacob Humbird, who afterward built a line of road from Tomah, *via* Black River Falls, and Eau Claire to Hudson, on Lake St. Croix, one hundred and seventy-eight miles. Its name was afterward changed to the "West Wisconsin Railroad Company." In 1873, it built its road from Warren's Mills *via* Camp Douglass, on the St. Paul road to Elroy, and took up its track from the first-named place, twelve miles, to Tomah. A law-suit resulted, which went against the railroad company, and the matter was finally compromised by the payment of a sum of money by the company to the town of Tomah. The road was built through a new and sparsely settled country, and its earnings have not been sufficient to enrich its stock-holders. It connects at Camp Douglass with the Chicago, Milwaukee & St. Paul road, and at Elroy with the Chicago & Northwestern railway company's line, which gives the latter a through line to St. Paul. It is operated in connection with the Chicago & Northwestern railway, and managed in its interest. It is now in the hands of Wm. H. Ferry, of Chicago, as receiver; H. H. Potter, of Chicago, as president; and E. W. Winter, of Hudson, superintendent.

THE MILWAUKEE, LAKE SHORE & WESTERN RAILWAY.

In 1870, the "Milwaukee, Manitowoc & Green Bay Railroad Company" was chartered to build a road from Milwaukee to Green Bay by way of Manitowoc. It built its line from Milwaukee to Manitowoc in 1873, when its name was changed to "Milwaukee, Lake Shore & Western Railroad Company." Under a decree of foreclosure, it was sold Dec. 10, 1875, and its name was changed to "Milwaukee, Lake Shore & Western Railway Company," by which name it is still known.

In 1866, the "Appleton & New London Railroad Company" was incorporated to build a road from Appleton to New London, and thence to Lake Superior. A subsequent amendment to its charter authorized it to extend its road to Manitowoc. It built most of the line from Appleton to that city, and then, under legislative authority, sold this extension to the Milwau-

kee, Lake Shore & Western railroad company. The last-named company extended it to New London, on the Wolf river, twenty-one miles, in 1876, where it connects with the Green Bay & Minnesota road. It now operates one hundred and forty-six miles of road, extending from Milwaukee to New London, passing through Sheboygan, Manitowoc and Appleton, which includes a branch line six miles in length from Manitowoc to Two Rivers. F. W. Rhinelander, of New York, is its president, and H. G. H. Reed, of Milwaukee, superintendent.

THE GREEN BAY & MINNESOTA RAILROAD.

The line of road operated by this company extends from Fort Howard to the Mississippi river, opposite Winona, Minnesota. It is two hundred and sixteen miles in length, and was built through a sparsely settled and heavily timbered section of the state. It began under most discouraging circumstances, yet was pushed through by the energy of a few men at Green Bay and along its line. It was originally chartered in 1866 as the "Green Bay & Lake Pepin Railroad Company" to build a road from the mouth of the Fox river near Green Bay to the Mississippi river opposite Winona. But little was done except the making of preliminary surveys in 1870. During 1870 and 1871, forty miles were constructed and put in operation. In 1872, one hundred and fourteen miles were graded, the track laid, and the river reached, sixty-two miles farther, in 1873. In 1876, it acquired the right to use the "Winona cut-off" between Winona and Onalaska, and built a line from the latter point to La Crosse, seven miles, thus connecting its road with the chief city of Wisconsin on the Mississippi river. The city of La Crosse aided this extension by subscribing \$75,000 and giving its corporation bonds for that amount. Henry Ketchum, of New London, is president of the company, and D. M. Kelly, of Green Bay, general manager.

WISCONSIN VALLEY ROAD.

The "Wisconsin Valley Railroad Company" was incorporated in 1871 to build a road from a point on or near the line of the Milwaukee & La Crosse railroad, between Kilbourn City and the tunnel in said road to the village of Wausau, in the county of Marathon, and the road to pass not more than one mile west of the village of Grand Rapids, in the county of Wood. The road was commenced at Tomah, and graded to Centralia in 1872, and opened to that village in 1873, and during 1874 it was completed to Wausau, ninety miles in its whole length. Boston capitalists furnished the money, and it is controlled in the interest of the Dubuque & Minnesota railroad, through which the equipment was procured. The lumber regions of the Wisconsin river find an outlet over it, and its junction with the Chicago, Milwaukee & St. Paul road at Tomah enables a connection with the railroads of Iowa and Minnesota. It gives the people of Marathon county an outlet long needed for a large lumber traffic, and also enables them to receive their goods and supplies of various kinds for the lumbering region tributary to Wausau. James F. Joy, of Detroit, is president, and F. O. Wyatt, superintendent.

SHEBOYGAN & FOND DU LAC RAILROAD.

The "Sheboygan & Mississippi Railroad Company" was incorporated in 1852, to build a road from Sheboygan to the Mississippi river. It was completed from Sheboygan to Plymouth in 1858, to Glenbeulah in 1860, to Fond du Lac in 1868, and to Princeton in 1872. The extension from Fond du Lac to Princeton was built under authority of an act passed in 1871.

Under a foreclosure in 1861 the line from Sheboygan to Fond du Lac was sold, and the name of the company changed to "Sheboygan & Fond du Lac Railroad Company." The length of

the line is seventy-eight miles, and it passes through a fertile agricultural country. The city of Sheboygan, county, city and town of Fond du Lac, and the towns of Riverdale, Ripon, Brooklyn, Princeton, and St. Marie, aided in its building to an amount exceeding \$250,000. D. L. Wells is president, and Geo. P. Lee, superintendent.

THE MINERAL POINT RAILROAD.

The "Mineral Point Railroad Company" was chartered in 1852, to build a road from Mineral Point, in the county of Iowa, to the state line, in township number one, in either the county of Green or La Fayette. It was completed to Warren, in the state of Illinois, thirty-two miles, in 1855, making a connection at that point with the Illinois Central, running from Chicago to Galena. Iowa county loaned its credit and issued its bonds to aid in its construction. It was sold under foreclosure in 1856. Suits were brought against Iowa county to collect the amount of its bonds, and judgment obtained in the federal courts. Much litigation has been had, and ill feeling engendered, the supervisors of the county having been arrested for contempt of the decree of the court. Geo. W. Cobb, of Mineral Point, is the general manager.

The Dubuque, Platteville & Milwaukee railroad was completed in July, 1870, and extends from Calamine, a point on the Mineral Point railroad, to the village of Platteville, eighteen miles, and is operated by the Mineral Point railroad company.

MADISON & PORTAGE RAILROAD.

The legislature of 1855 chartered the "Sugar River Valley Railroad Company" to build a road from a point on the north side of the line of the Southern Wisconsin road, within the limits of Green county, to Dayton, on the Sugar river. In 1857 it was authorized to build south to the state line, and make its northern terminus at Madison. In 1861 it was authorized to build from Madison to Portage City, and from Columbus to Portage City, and so much of the land grant act of 1856, as related to the building of the road from Madison, and from Columbus to Portage City, was annulled and repealed, and the rights and privileges that were conferred upon the LaCrosse company were given to the Sugar River Valley railroad company, and the portion of the land grant, applicable to the lines mentioned, was conferred upon the last named company. Under this legislation about twenty miles of the line between Madison and Portage were graded, and the right of way secured for about thirty of the thirty-nine miles. The LaCrosse company had done considerable grading before its right was annulled. In 1866 the company was relieved from constructing the road from Columbus to Portage City. In 1870 the purchasers of that part of the Sugar River Valley railroad lying between Madison and Portage City were incorporated as the "Madison & Portage Railroad Company," and to share all the rights, grants, etc., that were conferred upon the Sugar River railroad company by its charter, and amendments thereto, so far as related to that portion of the line.

Previous to this time, in 1864 and 1865, judgments had been obtained against the Sugar River Valley company; and its right of way, grading and depot grounds sold for a small sum. James Campbell, who had been a contractor with the Sugar River Valley company, with others, became the purchasers, and organized under the act of 1870, and, during the year 1871, completed it between Madison and Portage City, and in March, 1871, leased it to the Milwaukee & St. Paul company, and it is still operated by that corporation. In 1871 the Madison & Portage company was authorized to extend its road south to the Illinois state line, and north from Portage City to Lake Winnebago. The same year it was consolidated with the "Rockford Central

Railroad Company," of Illinois, and its name changed to the "Chicago & Superior Railroad Company," but still retains its own organization. The Madison & Portage railroad company claims a share in the lands granted by acts of congress in 1856, and have commenced proceedings to assert its claim, which case is still pending in the federal courts.

NORTH WISCONSIN RAILROAD.

The "North Wisconsin Railroad Company" was incorporated in 1869, to build a road from Lake St. Croix, or river, to Bayfield on Lake Superior. The grant of land by congress in 1856, to aid in building a road from Lake St. Croix to Bayfield on Lake Superior, under the decision of the federal court, was yet at the disposal of the state. This company, in 1871, built a short section of its line of road, with the expectation of receiving the grant. In 1873, the grant was conferred upon the Milwaukee & St. Paul company, but under the terms and restrictions contained in the act, it declined to accept it. The legislature of 1874 gave it to the North Wisconsin company, and it has built forty miles of its road, and received the lands pertaining thereto. Since 1876, it has not completed any part of its line, but is trying to construct twenty miles during the present year. The company is authorized to construct a road both to Superior and to Bayfield, but the act granting the lands confers that portion from Superior to the intersection of the line to Bayfield upon the Chicago & North Pacific air-line railroad. This last-named company have projected a line from Chicago to the west end of Lake Superior, and are the owners of an old grade made through Walworth and Jefferson counties, by a company chartered in 1853 as the "Wisconsin Central," to build a road from Portage City to Geneva, in the county of Walworth. The latter company had also graded its line between Geneva and the state line of Illinois. This grade was afterward appropriated by the Chicago & Northwestern, and over it they now operate their line from Chicago to Geneva.

PRAIRIE DU CHIEN & MCGREGOR RAILROAD.

This is a line two miles in length, connecting Prairie du Chien in Wisconsin, with McGregor in Iowa. It is owned and operated by John Lawler, of the latter-named place. It extends across both channels of the Mississippi river, and an intervening island. The railroad bridge consists of substantial piling, except a pontoon draw across each navigable channel. Each pontoon is four hundred feet long and thirty feet wide, provided with suitable machinery and operated by steam power. Mr. Lawler has secured a patent on his invention of the pontoon draw for railroad bridges. His line was put in operation in April, 1874.

THE CHIPPEWA FALLS & WESTERN RAILROAD.

This road was built in 1874, by a company organized under the general law of the state. It is eleven miles in length, and connects the "Falls" with the West Wisconsin line at Eau Claire. It was constructed by the energetic business men and capitalists of Chippewa Falls, to afford an outlet for the great lumber and other interests of that thriving and prosperous city. The road is substantially built, and the track laid with steel rails.

NARROW GAUGE RAILROADS.

The "Galena & Southern Wisconsin Railroad Company" was incorporated in 1857. Under its charter, a number of capitalists of the city of Galena, in the state of Illinois, commenced

the construction of a narrow (three feet) gauge road, running from that city to Platteville, thirty-one miles in length, twenty miles in Wisconsin. It runs through a part of La Fayette county to Platteville, in Grant county, and was completed to the latter point in 1875. Surveys are being made for an extension to Wingville, in Grant county.

The "Fond du Lac, Amboy & Peoria Railway Company" was organized under the general law of the state, in 1874, to build a narrow gauge road from the city of Fond du Lac to the south line of the state in the county of Walworth or Rock, and it declared its intention to consolidate with a company in Illinois that had projected a line of railroad from Peoria, in Illinois, to the south line of the state of Wisconsin. The road is constructed and in operation from Fond du Lac to Iron Ridge, a point on the Chicago, Milwaukee & St. Paul railway, twenty-nine miles from Fond du Lac.

The "Pine River & Steven's Point Railroad Company" was organized by the enterprising citizens of Richland Center, and has built a narrow gauge road from Lone Rock, a point on the Chicago, Milwaukee & St. Paul road, in Richland county, to Richland Center, sixteen miles in length. Its track is laid with wooden rails, and it is operated successfully.

The "Chicago & Tomah Railroad Company" organized under the general railroad law of the state, in 1872, to construct a narrow gauge road from Chicago, in Illinois, to the city of Tomah, in Wisconsin. Its president and active manager is D. R. Williams, of Clermont, Iowa, and its secretary is L. M. Culver, of Wauzeka. It has graded about forty-five miles, extending from Wauzeka up the valley of the Kickapoo river, in Crawford county, Wisconsin. It expects to have fifty-four miles in operation, to Bloomingdale, in Vernon county, the present year (1877). The rolling stock is guaranteed, and the president is negotiating for the purchase of the iron. South of Wauzeka the line is located to Belmont, in Iowa county. At Wauzeka it will connect with the Chicago, Milwaukee & St. Paul line.

The public-spirited citizens of Necedah, in Juneau county, have organized under the general law of the state, and graded a road-bed from their village to New Lisbon, on the Chicago, Milwaukee & St. Paul company's line. The latter company furnish and lay the iron, and will operate the road. It is thirteen miles in length.

CONCLUSION.

The railroads of Wisconsin have grown up under the requirements of the several localities that have planned and commenced their construction, and without regard to any general system. Frequently the work of construction was begun before adequate means were provided, and bankruptcy overtook the roads in their early stages. The consolidation of the various companies, as in the cases of the Chicago, Milwaukee & St. Paul, the Chicago & Northwestern, and others, has been effected to give through lines and the public greater facilities, as well as to introduce economy in management. At times the people have become apprehensive, and by legislative action prohibited railroads from consolidating, and have sought to control and break down the power of these corporations and to harmonize the interests of the companies and the public. The act of 1874, called the "Potter law," was the assertion, by the legislative power of the state, of its right to control corporations created by itself, and limit the rates at which freight and passengers should be carried. After a long and expensive contest, carried through the state and federal courts, this right has been established, being finally settled by the decision of the supreme court of the United States.

Quite all the railroads of Wisconsin have been built with foreign capital. The plan pursued after an organization was effected, was to obtain stock subscriptions from those immediately

interested in the enterprise, procure the aid of counties and municipalities, and then allure the farmers, with the prospect of joint ownership in railroads, to subscribe for stock and mortgage their farms to secure the payment of their subscriptions. Then the whole line was bonded and a mortgage executed. The bonds and mortgages thus obtained, were taken to the money centers of New York, London, Amsterdam and other places, and sold, or hypothecated to obtain the money with which to prosecute the work. The bonds and mortgages were made to draw a high rate of interest, and the earnings of these new roads, through unsettled localities, were insufficient to pay more than running and incidental expenses, and frequently fell short of that. Default occurring in the payment of interest, the mortgages were foreclosed and the property passed into the hands and under the control of foreign capitalists. Such has been the history of most of the railroads of our state. The total number of farm mortgages given has been 3,785, amounting to \$4,079,433; town, county and municipal bonds, amounting to \$6,910,652. The total cost of all the railroads in the state, as given by the railroad commissioner in his report for 1876, has been \$98,343,453.67. This vast sum is, no doubt, greatly in excess of what the cost should have been, but the roads have proved of immense benefit in the development of the material resources of the state.

Other lines are needed through sections not yet traversed by the iron steed, and present lines should be extended by branch roads. The questions upon which great issues were raised between the railway corporations and the people, are now happily settled by securing to the latter their rights; and the former, under the wise and conciliatory policy pursued by their managers, are assured of the safety of their investments. An era of good feeling has succeeded one of distrust and antagonism. The people must use the railroads, and the railroads depend upon the people for sustenance and protection. This mutuality of interest, when fully recognized on both sides, will result in giving to capital a fair return and to labor its just reward.

LUMBER MANUFACTURE.

By W. B. JUDSON.

Foremost among the industries of Wisconsin is that of manufacturing lumber. Very much of the importance to which the state has attained is due to the development of its forest wealth. In America, agriculture always has been, and always will be, the primary and most important interest; but no nation can subsist upon agriculture alone. While the broad prairies of Illinois and Iowa are rich with a fertile and productive soil, the hills and valleys of northern Wisconsin are clothed with a wealth of timber that has given birth to a great manufacturing interest, which employs millions of capital and thousands of men, and has peopled the northern wilds with energetic, prosperous communities, built up enterprising cities, and crossed the state with a network of railways which furnish outlets for its productions and inlets for the new populations which are ever seeking for homes and employment nearer to the setting sun.

If a line be drawn upon the state map, from Green Bay westward through Stevens Point, to where it would naturally strike the Mississippi river, it will be below the southern boundary of the pine timber regions, with the single exception of the district drained by the Yellow river, a tributary of the Wisconsin, drawing its timber chiefly from Wood and Juneau counties. The territory north of this imaginary line covers an area a little greater than one half of the state. The pine timbered land is found in belts or ridges, interspersed with prairie openings, patches of hardwood and hemlock, and drained by numerous water-courses. No less than seven large