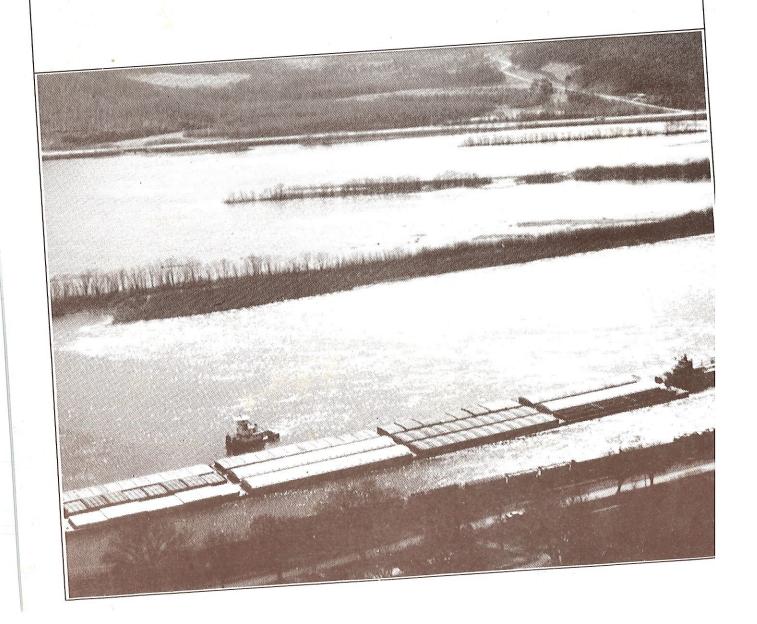
## TREMPEALEAU AND THE MISSISSIPPI RIVER DAM

BY WINSTON ELKINS



In writing this account I have relied on many individuals. I am indebted to Michael Gordon of the Wisconsin State Historical Society for his counsel, advice and patient editing. The other staff members of the Society helped with reference material as did my co-workers in the Community Historian group. The officers of the Trempealeau County Historical Society, notably Mary Jane Hilton and Marilyn Klinkner have been consistently helpful. I am indebted also to Dave Wood, book page editor Minneapolis Star and Tribune-- a former Trempealeau County resident.

Former and present lockmasters Pete Leavitt and Irvin Diamond gave invaluable aid and information. At the St. Paul office, the officers and staff of the U.S. District Engineers made available the Nine-Foot Channel reports. Their cooperation in locating pictures and reports was very helpful.

Without the willing help of local residents this paper could not have been written. James Robinson, John Mahlon Welch, and Ted Harris supplied the story of village life during the construction period. Wendell Stephan, Byron Stephan, Bob Trowbridge, Earl Malles, Ed Ryder and Carroll Farber described the daily construction work at the river. E. Alvin Schubert and Clifford Beebe did the same for the rock quarrying operation in the bluffs. Ferd and Charles Robers contributed to my understanding of dredge and soil stripping jobs.

Arnold Elkins educated me about public works funds and job certification. John Dawdy provided information about life in the summer home colony on the river bank. Harvey Neilson made the records of the Masonic Lodge available for my perusal.

And finally my thanks go to Charlotte Elkins who patiently typed through several revisions of the manuscript.

## TREMPEALEAU AND THE MISSISSIPPI RIVER DAM

## BY WINSTON ELKINS

The serenity of a sleepy river town in West Central Wisconsin was disturbed in early September of 1933 when Trempealeau residents noticed government crews cutting brush along the river front. It was at this site that a lock and dam would be built between 1933 and 1936. The dam was part of the Upper Mississippi River Nine-Foot Channel project, a large federal construction project stretching from Minneapolis to St. Louis. The construction at Trempealeau had immediate and long-term effects on the area which this paper will examine.

The La Crosse <u>Tribune</u> described the river project in terms of employment for local workers and pointed out that President Franklin D. Roosevelt urged completion of the whole project within three years. "Men from Wisconsin and Minnesota counties bordering the Upper Mississippi River are to be given jobs on the dams to be built in the 9-Foot Channel program..." A headline in the Galesville <u>Republican</u> read, "Trempealeau Dam Sure Project Now" and went on to state that Trempealeau was jubilant over the progress of the government dam. In the past, Trempealeau had seen a parade of native Americans, French explorers, fur traders and pioneer American settlers, the last named eager for farm land. Now it would see other newcomers.

At this point the Mississippi passes through the narrowest gorge in the entire navigable reach of the river. The solitary bluff, surrounded by water, was called by the French La Montagne qui tremp a l'eau, or mountain with its foot in the water. This apellation with slightly changed spelling became the name of the village of Trempealeau.

The French explorer, Nicholas Perrot spent the winter of 1685-1686 at Trempealeau and then moved on. In 1837, the American

<sup>&</sup>lt;sup>1</sup>La Crosse Tribune, September 11, 1933

<sup>&</sup>lt;sup>2</sup>Galesville Republican, September 28, 1933

Fur Company established a woodyard on the island opposite Trempealeau in 1840 to supply wood for its steamboats. James Reed came to Trempealeau in 1840 with his family, built a log cabin and became the first permanent settler. See Figure 1

From about 1857 to 1871, Trempealeau was a port for wheat shipment downstream via the steamboats. With the coming of the Chicago and North Western Railroad in 1871, farmers began to ship grain by rail, and Trempealeau as a river shipping point went into decline. The C.& N.W. and a second railroad, the Chicago, Burlington and Quincy in 1883 moved freight and passenger business from the river to the railroads. Virtually all that remained on the river were the social or recreational trips by the excursion boats. The river steamers such as the <u>Capitol</u> and <u>J.S.</u> operated as floating dance halls. Another entertainment vessel was <u>Frenche's Floating Theater</u> which docked at the river towns with its vaudeville show. There were some private boats in operation; one, the Mayo Brothers'yacht <u>North Star</u>, stopped at Bailey's cottage to take the youngsters for a ride. These examples illustrate the modest use of the river for traffic other than local.

Use of the river by local villagers included commercial and sport fishing. There was swimming in the river in the summer, but a flood-plain site, Third Lake, was a more popular swimming hole. In the winter, the river and flood-plain lakes were used for skating. Duck hunting was a popular sport in the bottom land marshes both upstream and downstream from the village. Once the river froze over, the ice was used as a winter road to the Minnesota shore.

In 1928 Trempealeau had three paved streets: Main Street, East Third Street, and Sixth Street.<sup>4</sup> There were sidewalks, however, and villagers walked to the post office, to the bank, to the stores on Main Street, and to Stellpflug's store at Sixth

<sup>3&</sup>lt;u>Trempealeau 1867-1967</u>, Historical Album, Hettie Pierce Library, Trempealeau, p. 5-6

<sup>&</sup>lt;sup>4</sup>Standard Atlas of Trempealeau County, Wisconsin 1901, George A. Ogle and Co., Chicago, p.59. There were no street markers in 1928 and street names were not used, directions tended to be given as "across from the schoolhouse", "next to the park" or "past the Congregational Church".

and Chase, which also was served by a sidewalk. The North Western Depot was nearby, as was the Thomas Hotel and the Thomas Store. A housewife might push a baby buggy on her way to shop for groceries; in the winter she might pull a sled. If she was willing to trust her grocery order to the spoken word, over the phone, the Trempealeau Mercantile delivered groceries and general merchandise daily in a Model T Ford pickup truck.

In 1932, the village continued in the tranquil lifestyle of the 1920's but with this difference: railroad work had fallen off and jobs were few. That summer the river reached its lowest level ever recorded. A newspaper reported that "Sandbars never seen before are clearly visible...." At Trempealeau, Winona and at other points people waded across the river, actually walking from Wisconsin to Minnesota on the river bottom without getting their faces wet. By autumn, the "Father of Waters" was a shrunken stream. 5

In the early 1930's several days could pass without ever seeing a boat on the Mississippi. River commerce was almost nonexistent and pleasure boating not much in vogue. Farther downstream the view from the Iowa shore was similar. Marquis W. Childs, a famous journalist who lived near Clinton, described the scene as "the wide river--swept bare". The river indeed was swept bare: it had fallen into disuse. Constricting the channel by wing dams and closing dams did not work; supplementary dredging did not create deep water throughout. The Mississippi Waterway simply was not a going concern. See Figure 2

A system of locks and dams eventually made the difference between an unused river and a busy one. The concept of a channel nine-feet deep in the Upper Mississippi River (from Minneapolis to the mouth of the Missouri River) was not born of one flash of inspiration; rather the Nine Foot Channel grew from lesser measures taken to improve navigation. Those measures extended just over a century before the great Depression. In the 1830's the Federal

<sup>&</sup>lt;sup>5</sup>Galesville Republican, October 20, 1932

<sup>&</sup>lt;sup>6</sup>Marquis W. Childs, <u>Mighty Mississippi</u>, (New York, Tichnor and Fields, 1982), p. 166



Figure 1 - The paddlewheel steamer was the commercial craft of the nineteenth and early twentieth century. The Richtman, a wooden-hull steamboat built at Sterling Illinois, 1898, operated on the upper Mississippi until 1904. Murphy Library, University of Wisconsin - La Crosse.

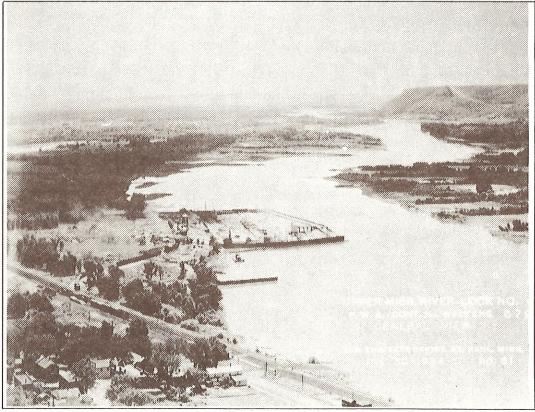


Figure 2. The Mississippi River at Trempealeau in 1934 showing the temporary coffer dam enclosing the site of Lock Number Six. Looking downstream, Wisconsin shore on the left, Minnesota shore on the right. June, 1934. Corps of Engineers photo.

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government removed snags from the river and dynamited rock in several rapids in order to assure adequate depths for boat travel when the water level in the river was low. In 1878, Congress authorized a comprehensive Four-and-a-Half Foot Channel project for the upper river. Lateral navigation canals around the most obstructive rapids were a feature of this project. This meant constructing a canal around the rocky rapids rather than attempting to dig or blast the rock from the channel. In 1907, Congress authorized a Six Foot Channel along the Upper Mississippi. This was the era of the wing dams, rock and brush structures extending into the river from shore which constricted low-water flows into the middle of the river in an attempt to create the desired depth for navigation. The six-foot operating depth was not achieved; in places it was only five feet or less. 8

A tributary to the Mississippi, the Ohio River, became the catalyst for the Nine-Foot Channel. The Ohio Lock and Dam system, fify-four locks and dams in all, was successful largely because the "movable" dams (in contrast to fixed crest dams) kept free of silt. The Ohio project was promoted by waterway organizations such as the Mississippi Valley Association and enthusiasts, among them Secretary of Commerce Herbert Hoover. When Hoover became President, the "Great Engineer" pointed to the economy of water transportaion, and endorsed the Ohio type of dam for the Nine-Foot Channel of the Mississippi. On February 8, 1927, the U.S. Board of Engineers for Rivers and Harbors recommended "a survey to determine the cost of providing a dependable nine-foot channel between the mouth of the Illinois River and Minneapolis....". This places the early step toward a Nine-Foot Channel in the adminis-

Hoover said, "Modern forms of development have made water carriage the cheapest of all transportation for many types of goods. With greater depths...it is possible to restore our waterways".



<sup>&</sup>lt;sup>7</sup>U.S. Army Corps of Engineers, <u>The Upper Mississippi River</u> Nine-Foot Channel (U.S. Government Printing Office, 1981).

<sup>&</sup>lt;sup>8</sup>William J. Petersen, <u>Towboating on the Mississippi</u> (Cranbury, New Jersey, 1979) p. 10

<sup>&</sup>lt;sup>9</sup>Report of Chief of Engineers U.S. Army 1931-1935, <u>Rivers</u> and <u>Harbors Upper Mississippi</u>, (U.S. Government Printing Office, Washington)

tration of President Calvin Coolidge. The Rivers and Harbors Act of 1930 was passed by Congress and signed into law by President Hoover. The original estimated cost of construction was \$124 million for the twenty-three dams. (The Ford Dam at Minneapolis, the Hastings Dam and the Keokuk, Iowa Dam were already in place.) 11

The next year the Rivers and Harbors Act was amended to give greater flexibility to the engineers on the ground. The amendment pointed out that original estimates were too general and that further study would lead to many improvements. The sum of \$7.5 million was appropriated for initial works. Inasmuch as Dams One, Two and Nineteen (Ford, Hastings and Keokuk) were on site on the Mississippi River, this meant that the newly appropriated \$7.5 million would go to the remaining 23 dams of the proposed 26-dam system. 12

The decline in river commerce, together with the boost to seaborne commerce, spurred the chambers of commerce, mayors, and other inland waterway boosters in the river ports along the Mississippi, Ohio and Illinois Rivers in the midwest, as well as similar groups along southern streams, and the grain farmers of the midwest and plains states. River proponents in the "dryland" midwest believed the government discriminated against them. They believed that a government which, in 1914, built the Panama Canal was being unfair to inland interests. With the canal a New York firm could ship an article of commerce to California cheaper than could a Minneapolis firm. The New Yorker shipped all the way by water and this was cheaper than the Minneapolis firm could ship by rail to the west coast. Therefore, the inland waterway enthusiasts argued that a water route via the Mississippi to the Gulf of Mexico would balance the competition.

A St. Louis newspaper described the convention of the Mississippi Valley Association (MVA) with this headline, "Huge

<sup>11</sup>House Document 290, 71st Congress, 2nd Session, Mississippi River Between Mouth of Missouri River and Minneapolis, Minnesota (Washington)





Bond Issue--Asks Congress to Complete System Within Five Years". The system referred to meant the Nine-Foot Channel. Proponents included Senator Henrik Shipstead of Minnesota (a grain growing state with several river ports), Congressmen Joseph Mansfield of Texas (a grain growing state with river ports) and Scott Leavitt of Montana (a grain growing state). As for the MVA, the St. Louis newspaper (the MVA headquarters office was in St. Louis) characterized it as a voluntary association of commercial, industrial, and consumer interests. 13

The election of President Roosevelt in 1932 and the dawning of the "New Deal" greatly speeded the timetable for the Nine-Foot Channel on the Upper Mississippi. Emergency public works funds were added to the regular funds for rivers. A tremendous engineering project, the dam project now had the urgency for immediate construction in order to employ as much unemployed labor as possible. This huge task fell to the U.S. Corps of Engineers. Organized on the Upper Mississippi in three districts, the Corps proved equal to the task. Lock and Dam number six at Trempealeau fell within the territory of the St. Paul District Engineer. 14

The lock and dam system was designed to enhance river traffic. The system itself is quite complicated but fascinating. A river, such as the Mississippi, is essentially water flowing down a slope. In the process the water is confined to a channel. The Nine-Foot Channel system of locks and dams converted the slope to a stairway. When we walk up a stairway we step on horizontal treads. The treads are separated by risers which are vertical. In a lock the tread is the water surface in the lock chamber; the risers are the gates at the upstream and downstream ends of the lock chamber.

Lock operations begin with the lower gate open and the upper gate closed. Thus the water surface of the tailwater below the dam and the water in the lock chamber are at the same level.

<sup>13</sup>St. Louis Post Dispatch, May 15, 1933

<sup>&</sup>lt;sup>14</sup>Interview with Lockmaster Irvin Diamond, October 12, 1984

An upstream-bound boat enters the chamber. The lockman then closes the lower gate and admits water to the lock chamber until the water surface in the chamber is at the same level as the water upstream of the upper gate. The lockman then opens the upper gate and the boat proceeds upstream over a level water surface.

Anyone riding upon an escalator from one floor of a building to the next steps on a tread and the moving tread carries him up to the next level. This is what the water in the lock does with the boat: carries it up to the next level. Strictly speaking then a lock works like an escalator. The system of dams in the Nine-Foot Channel can be viewed as a stairway with each lock operating in a manner similar to an escalator.

The task of the Nine-Foot Channel engineers was to construct a stairway from St. Louis to Minneapolis. One of the steps in this stairway was to be at Trempealeau. Topography and channel gradient were the factors dictating the site for lock and dam number six at Trempealeau. Local boosters could have pointed to the narrow channel between steep bluffs as a good dam site (and such it was), but the decision was based on the arithmetic of slope and distance in the whole system. 138.7 miles from Minneapolis to Trempealeau, (excluding the 22 miles of Lake Pepin were nature built the dam in the form of the Chippewa River Delta), the Corps proposed to build a dam about every 15 miles. From the Lower St. Anthony Pool at Minneapolis, sea level elevation 725, downstream to the Trempealeau tailwater, elevation 639, the river drops 86 feet, or an average drop of 12 feet per dam.

The lift at Trempealeau is less than average at 6.5 feet and was originally planned at 13 feet; but the higher dam would have flooded the Winona storm sewer system upstream from Trempealeau. The modification consisted of a lower dam at Trempealeau and an additional dam (number 5a) near Fountain City in order to achieve the nine-foot depth through that reach. 15



<sup>15</sup>Interview with former Lockmaster L.C. Leavitt, September 5, 1983

In the early 1930's a government built dam would mean jobs for Trempealeau residents and others. For the shopkeeper, the tavern keeper and the family with rooms to rent, the project on the river meant a livelier business with the cash register jangling. At the same time these local proponents were realistic about the short-term nature of the construction phase. As a consequence, no important new buildings were erected in the village during the dam-building years. The slow economy of these depression times was a factor, too.

Another group, the suppliers for the construction job, also stood to gain. Three of these identified early on were: Trempealeau Lime Company with its quarry in the bluff above the village, the only logical source for the great quantities of rock needed; Johnson Gravel Pit located adjacent to the east end of the new dam the source for the fill needed to supplement the dredge spoil sucked up from the bottom of the river; and timber growers who could supply fourteen-inch-diameter hardwood piles. Trempealeau and La Crosse County wood-lot owners and farmers comprised the last-named group.

When talk of the imminent federal project circulated, the reception ranged from disbelief to incredulity. A river valley would be filled with water from bank to bank, perhaps even from bluff to bluff where now there were cottages, marshes, floodplain timber, roads and three railroads! Actually the plan in reality was more modest: a river averaging three and a half feet deep in August would have five and a half feet added on top. For decades the idea had been to dredge the river bottom deeper and that idea had not been too successful. The solution fell in the opposite direction.

One of the opponents was the railroad industry whose tracks paralleled the river and bridged the tributaries. Affected were the Burlington Route on the east bank, the Milwaukee Road on the west bank and the North Western cutting across the Black River bottoms, the Trempealeau River Valley and the Mississippi at Winona. A rise in the river level meant that railroads would have to provide more right-of-way protection in the form of riprap rocks to prevent erosion at the water's edge, raise bridges

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and install enlarged culverts, and raise the tracks in affected areas, especially in the lower part of the pool where the difference in water level would be somewhat greater than in the upper part of the pool.

Nationally and regionally the railroads could not have seriously believed that river craft would compete with them for the passenger business. But the freight trade was another matter. Water transportation of grain, logs, coal, and petroleum was feasible. As events later proved, fertilizer, scrap iron and sulfur were cargoes also suited to the water carriers.

There were other opponents besides railroads. For example a Winona sportsman wrote "We are still against the alleged nine-foot channel under the dam form of construction....It will completely destroy bass fishing on the river and will form a series of badly polluted pools...the scenic attraction of the river will be completely wiped out". 16

Missippi River fisheries were viewed somewhat differently by scientists studying the area. A report by Dr. M.M. Ellis of the U.S. Bureau of Fisheries concluded that the Nine-Foot Channel need not be incompatible with fishery interests. Ellis stressed the need for lateral areas for spawning grounds and fish-food production, preventing the enormous amount of erosion silt which had been entering the river and warning municipalities about sewage hazards. 17

Nationally, proponents included waterways promoters such as grain shippers and coal shippers. They prevailed. Locally, if nay-sayers and dissidents were present their voices were muted or not recorded.

Funds for the Trempealeau Lock were allotted under the National Industrial Recovery Act of 1933. Bids for the lock were opened November 2, 1933 Spencer, White and Prentis, Inc. of New York City was the successful bidder at \$1,272,271. The

<sup>17&</sup>lt;sub>House Document #137, 72nd Congress, 1st Session Appendix C (U.S. Government Printing Office, 1931) p.53-68</sub>



<sup>16</sup> Winona Republican-Herald, Voice of the Outdoors, July 16

contractor was given one year to build a coffer-dam, dewater the site, drive the foundation piling, construct the forms, pour the concrete for a lock 110x600 feet and an auxiliary lock 110x269 feet, build a control structure, install lock gates, build a guide wall, and remove the coffer dam. When bids for the dam were invited Spencer, White and Prentis were again successful at \$1,668,442.36. The same construction plant, including a pile driver and cement mixer, was used for both jobs. The prime contractor figured its bid based upon the government specifications for the job and the advice of its retinue of sub-contractors. If awarded the contract the prime contractor functioned as the overseer with the sub-contractors and their crews doing the work. 18,19 See figures 3 and 4

Jobs were few in 1933 and early 1934, and out-of-work laborers were numerous. The contractor could take his pick from among local applicants, and if a man was hired but did not impress the foreman there would be a new face in his place the following week. When hiring was underway a steady worker might be asked to recommend someone who would be a good man to hire. No women worked on the lock and dam project. See figures 5,6 and 7.

<sup>18</sup>In 1930, 1931 and 1932 Spencer, White and Prentis, Inc. was capitalized for \$350,000 as a contour and pile-driving concern at 10 East 40th St., New York City. In operations on the Upper Mississippi the company built Dam Number 4 at Red Wing and Lock Number 8 at Genoa, at Trempealeau the company built both Lock Number 6 and Dam Number 6. Spencer, White and Prentis forfeited their charter in 1936 in Florida. (Fishers Manual of Valuable and Worthless Securities (1936 New York v.7) p. 296) The contractors' organization chart lists Lazarus White, President; Charles B. Spencer, Manager; Walter Ross, Assistant Manager and Superintendent; Robert Dunlay, Assistant Superintendent. Walter Ross is remembered as the most active and visible of the officers during the operations at Trempealeau. Sub-contractors who played important roles were: Ferd J. Robers Dredging, Winona Piling Company, American Bridge Company, Bechman Painting Company, George C. Boltz Dredging Company, La Crosse Dredging Company and Sterling Electric Company. Government resident engineers for the construction period were: F.E. Cothran to March 1935, F.S. Blinn to July 1936, Mark Haima to September 1936 and Russel P. Christensen to cessation of construction activities.

<sup>19</sup> Mississippi River Dam No.6 - History of Construction and History of Construction Lock No. 6. (Both in Archives at St. Paul District Engineers Office, St. Paul, Minn.) For information and names of engineers, inspectors, surveymen and foremen these reports may be consulted.

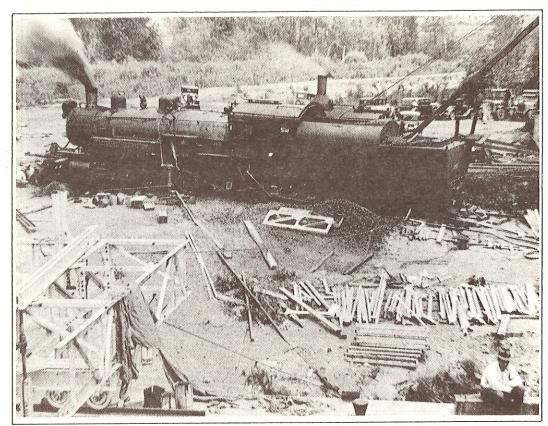
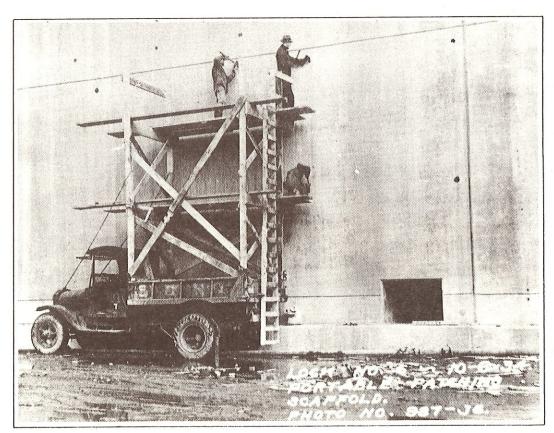


Figure 3 - Steam locomotive which furnished power for the pile driver; a Hudson type locomotive built by Baldwin for the Burlington Railroad. July, 1934. Pauline Carl photo.



**Figure 4**. This ingenious portable patching scaffold on a chain-drive Mack truck was used in the lock chamber for tamping with cement the bolt holes remaining after the wooden forms were removed. October, 1934. Corps of Engineers photo.

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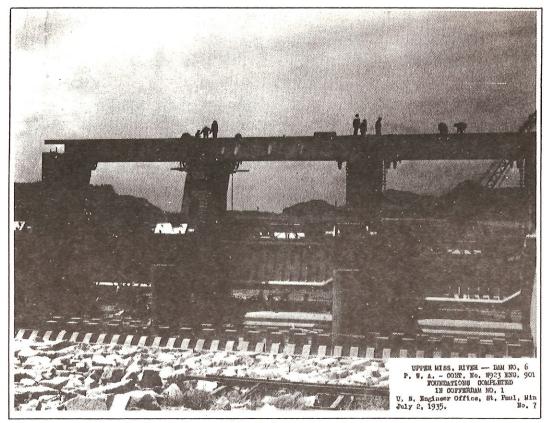
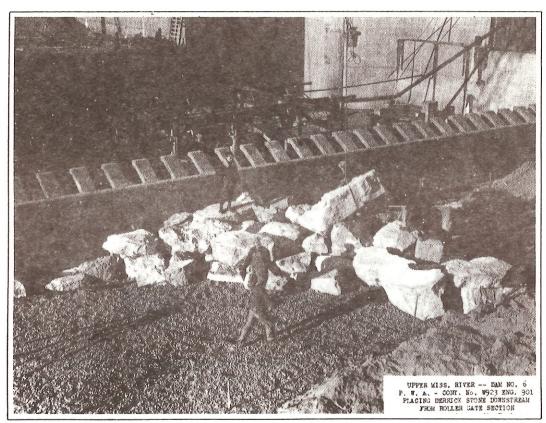
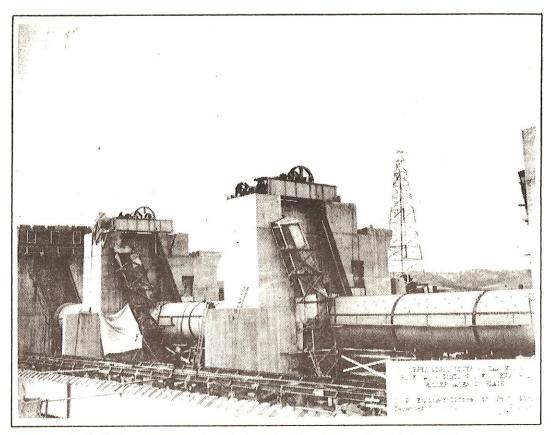


Figure 5 - Foundation completed in tainter gate of dam. July, 1935. Corps of Engineers photo.

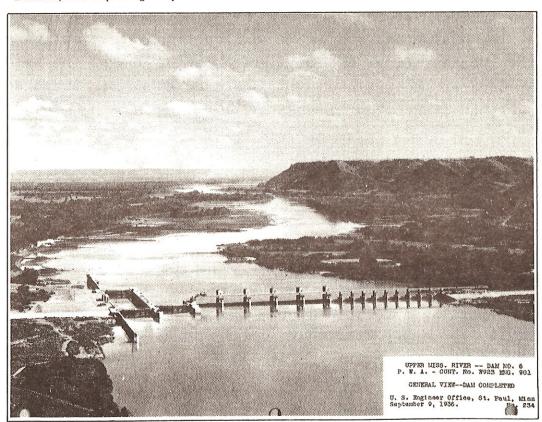


 $\textbf{Figure 6} \cdot \textbf{Placing derrick stone downstream from roller gate section of dam. December, 1935. Corps of Engineers photo. \\$ 





**Figure 7** - Three of the five roller gates are shown in place. These "movable" structures help eliminate silt. December, 1935. Corps of Engineers photo.



**Figure 8** - The completed lock and dam in September, 1936. Pool six in foreground, pool seven downstream in background. Corps of Engineers photo.

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Movement between jobs was common. A quarry worker might leave the limestone job in favor of better pay as a semiskilled worker on the lock and dam. A laborer working with the pile driver crew might move to a semi-skilled job as truck-driver or jack-hammer operator.

There was movement also from outside the village as Gales-ville, Holmen and Centerville residents sought work at the lock and dam. And there was movement from urban centers: ironworkers from Duluth, dredge crews from La Crosse, carpenters and cement finishers from Dubuque or Chicago. As of May 3, 1934, there were 300 men employed on the lock and dam. On the lock and dam workers were more than half the population of the village, which stood at 541. On the lock and dam workers were more than half the population of the village,

In 1933 pay scales started at  $40\phi$ /hour for unskilled labor,  $60\phi$ /hour for semi-skilled and \$1.20/hour for skilled labor. A non-labor category of waterboys and timekeepers received  $30\phi$ /hour. By mid-1934 Public Works Administration wage rates were prescribed These were the same \$1.20/hour for skilled labor but many of the semi-skilled were raised to  $70\phi$ /hour and all of the unskilled went up to  $50\phi$ /hour. 22

The design and stages of construction were simplicity itself. Workers first had to build a coffer dam on the Wisconsin shore, dewater the enclosed area and dredge the river bed down to the foundation. Next they constructed the operating <u>lock</u> and

<sup>&</sup>lt;sup>22</sup>Wage Rates Work Division State of Wisconsin (Circular 3-21-1934 from State Emergency Relief Administration, Madison Wisconsin)



<sup>20</sup> Galesville Republican, May 3, 1934

<sup>21</sup> Trempealeau Village population in this century was:

<sup>1900 -- 609</sup> 1910 -- 535 1950 -- 645 1970 -- 743 1980 -- 956

<sup>1920 -- 536 1960 -- 704 1984 -- 1021</sup> 

<sup>1930 -- 541</sup> 

Thirteenth through Nineteenth Census of the United States plus state supplements. (Washington D.C.)

auxiliary in the dewatered area. When completed they removed the coffer dam and allowed the river to flow through the open gates of the lock. See figure 8.

Then work crews built another coffer dam from the lock west to the Minnesota shore, pumped out the water and built the dam in the enclosed area. Finally they removed the coffer dam. Lock and Dam Number Six was ready for operation in September 1936.

Hardwood piles comprised the base for both the lock and the dam. Winona Piling Company was one of the subcontractors for that phase of construction. The company hired several local workers. Timber buyer Leo Schwert and driver Wayne Thornton secured the piles mainly from the wooded hills within 20 miles of the river. White oak was favored for its long-lasting qualities but some birch and maple was used. As the piles were unloaded in the construction area, Bill Hannam with his team moved the piles into place for driving. The piles had to be shaped or capped for driving. Once driven down to bedrock the piles had to be cut off by a two-man crew equipped with a double-handled crosscut saw. Wendell Stephan and Theodore Hanson worked on this job.

Originally the contractor operated on a combination hourly and piece-work basis. In order to spread the work around among more men, workers were limited to a five-hour day. But if the two-man team succeeded in cutting off ten piles they had earned a day's wage and could go home regardless of the hours worked. Thus if a crew managed ten piles in four hours, or even three and a half, their day's work was done. Later on in the project, or with a different sub-contractor, piling crews worked an eight-hour day. Dredge operators and crew worked an eight-hour day and in some circumstances up to ten hours. 23

Ferd Robers was one of the sub-contractors. Ferd came to the Upper Mississippi from a job on the Mississippi-Illinois canal east of Rock Island. He and his crew performed dredging and soil stripping jobs at Red Wing, Alma, Whitman, Trempealeau and Genoa. Robers operated a Northwest Dragline at Red Wing and while

<sup>23</sup> Interview with Wendell Stephan, September 16, 1984

engaged in that job bought another dragline which he unloaded from the railroad flat car there. Subsequently the dragline was loaded on a wooden barge and hauled downstream across Lake Pepin by the paddlewheel steamboat Aquilla. After service at Alma and Whitman the dragline was moved on Minnesota state highway 61 to a point opposite Trempealeau. There was no access road. Bud Dyckman, Robers' operator, walked the dragline through the water (with only the cab and boom above water) to the spillway site of Dam Number Six. There the site was stripped of two feet of silt overlaying the sand. "Did the entire job in 24 hours", Ferd Robers remembered proudly. 24

Ingenuity, guts and hard work were as commonplace on the Nine-Foot Channel as on many American ventures. The bosses, the foremen and the work force can best be described as hard-driving and single-minded. Their concern was to get the job done. At times this end result was achieved at a cost to human welfare and health. There were no hard hats or steel-toed safety shoes in the early 1930's. Examples of accidents include one on December 28, 1933 when the piledriver took a tumble and crashed through the ice in 12 feet of water; on January 18, 1934 Joe Koba sustained a scalp wound when struck by a windlass; on February 15, 1934 a crane fell and Mr. Donald, a transient suffered a broken collar bone; the same week a truck went through the ice but Earl Mosher and Byron Stephan jumped to safety; on April 26, 1934, William Shrake was knocked unconscious when a pile fell on him; on May 3, 1934, Edward Frasch smashed two fingers between sheet piling and on May 10 Mr. Sutherland was injured when struck by a pile and entangled in some chains. In a more serious accident on June 25th James Quigley lost a leg in a tractor accident. On September 27, 1934, Cyril Hobin, an iron worker was cut on the nose and face when struck by a metal piling. On October 11, 1934, Divine Wagner was cut in the leg by a snapped wire.

The sole fatality at Lock and Dam Number Six was confirmed

<sup>24</sup>Letter March 23, 1984 Charles E. Robers, Robers Dredge Co., La Crosse to Winston Elkins, Trempealeau.



on January 24, 1935 when the body of Peter Alberts was brought to the surface by a dredge. He was a Canadian who had lived at Alma. He had disappeared on November 27, 1934.<sup>25</sup>

A second fatal accident on July 1, 1935 happened at the quarry, rather than at the lock and dam, when a falling 1,500 pound rock killed Donald Suttie.  $^{26}$ 

Safety on the job became more of a concern as the construction proceeded. The engineers and the contractors recognized the need to cut the accident rate. For protection against the weather, however, the workman was on his own. With winter longies under the work pants, and overalls, a wool jacket or mackinaw, a cap with earflaps, snowpacs or overshoes on the feet and lined woodchopper mittens on his hands the worker faced the icy blasts that whistled over the river ice. The lock and appurtenant structures were completed in 469 calendar days. There were but eight days of lost time due to inclement weather. 27

If the lock and dam employees worked hard on the job, they also played hard off it. After work and on weekends it was as if "all the cowboys came to town!" in the words of Pete Leavitt, whose folks ran the hotel.

There were five taverns: Trempealeau Hotel, Charlie Kreuzer's in the Huttenhow Building, Norm's Hotel in the Hankey Building, Hank Beardsley in the Sportsman Tavern, and Bullfishers Place, (Frank Cisewski's a mile upstream near the Perrot State Park entrance). None lacked for customers any night and on Saturday Night (payday) the bar in each establishment was packed.

A schooner of beer cost a dime and many a man-sized thirst needed quenching after a hot day on the pile-driver or cement mixer. Downing suds and trading stories comprised the tavern fellowship but there was music too, according to Mahlon Welch, bartender at the Hotel. Walter Ross, Resident Manager for the Prime Contractor would come in on payday and buy drinks for the



<sup>25</sup>Galesville Republican, Galesville City Library

<sup>26&</sup>lt;sub>E.</sub> Alvin Schubert, Trempealeau Lime Products Co. 1916-1942

<sup>27</sup> History of Construction Lock Number Six

house. There was a piano in the bar, and when one engineer sat down to play another engineer on the drums and a third on the trumpet there were all the essentials for a jam session. There was informal dancing in the hotel and in some of the other taverns.

The regular dances held in the Woodman Hall in the twenties were not so regular by the mid-thirties. Weekly dances were the rule, however, at the Centerville Pavilion five miles north of Trempealeau. Dam workers and local residents all participated. There boy met girl and girl met boy and "a good time was had by all".

Baseball in the thirties was big in Trempealeau, which fielded a High School team and a town team. The teams were supported avidly by townspeople and by construction workers when off the job.

Swimming in Third Lake, to some extent in Big Lake and in the Mississippi was good summer recreation.

Fishing was a summer and fall sport from boat or bank. It became a winter sport from the ice in Second and Third Lake and at Mud Lake in the Big Marsh. Both workers and local residents fished.

Fall hunting meant duck hunting at Round Lake and Mud Lake and also in the Black River Bottoms. Other hunting consisted of squirrels and cottontail rabbits locally and jack rabbits on the Trempealeau Prairie. The deer population was just beginning to build to huntable size.

Construction of the lock and dam affected the social and political life of the village and the environment of the river valley.

The social aspect of Trempealeau became in the words of bank cashier James Robinson just like, "a little western boom town". Jobs were there where there had been none, money circulated and there was action almost around the clock.

There was noise where quiet had prevailed. The pile driver operated from four o'clock in the morning until midnight. With steady ryhthm the hammer dropped to the top of the pile, thud, thud, through out the day and most of the night. Traffic from trucks and workers' cars contributed to a scene more lively

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than Trempealeau had witnessed for several decades. It was, however, a scene to which the villagers quickly became accustomed.

Did school, church, lodge and club attendance show a marked change during the construction years? Apparently the effect was minimal in the elementary and high school. The same trend apparently was true of the congregation in each of the three churches, no marked change.

Records of the Masonic Lodge are revealing inasmuch as the membership is faithfully portrayed from 1859 to 1985. In the two decades of the 1920's and 1930's the lodge initiated 57 new members, an average of 2.8 per year. In 1935, the peak year of dam construction 7 members were initiated. The construction people became members of the local lodge but at the same time were aware of the world-wide nature of Masonic affiliation. For those who knew that their time in Trempealeau was limited, and that they might be working one hundred miles or more downstream in the next year or two, this could have been a factor in their participation. <sup>28</sup>

In summation we see the social fabric of village life relatively unruffled. The dam workers were welcomed but not pressured for deep involvement.

The villagers were accorded a close-up look at a large federal project in operation. Employment on the lock and dam was a plus for the village as was the money put into circulation. Benefits of a longer term were not so easily grasped, i.e.: a small-boat harbor at Trempealeau was proposed by the Corps of Engineers. When told that part of the cost must be borne locally, the Village Board voted against it. (Trempealeau has no marina and has actively worked for one over the past two decades. Tourism and recreational boating would be aided by a marina at this location.

A water system for Trempealeau may have been stimulated by the realization of the existence of federal aids to local government. Plans for a village water utility with a reservoir on Little Bluff took shape in 1936, and became a reality by 1938

<sup>28</sup>Ledger, Lodge 117 F.&A.M. (Trempealeau, Wis.)



with the aid of a federal grant. Prior to that, Trempealeau was a village with individual wells at each residence. It was not until 1972 that the village shifted from individual septic tanks or outdoor privies to a sanitary sewer system and waste treatment plant; again with the help of a federal grant and loan.

The building of the dam and the activity associated with it made a considerable impression on Trempealeau people; but Trempealeau did not make that indelible an impression on the itinerant workers. There were nine dams being built along the Upper Mississippi in the early and mid 1930's. Any contractor or sub-contractor might work on two or three or even a halfdozen of these construction jobs. Local workers also were willing to commute upriver or downriver if there was a job to be had. Itinerant construction workers moved on to other similar jobs, and while they may have enjoyed their weeks or months in Trempealeau, few formed any long-term relationship with the local people. These construction workers did not become a permanent part of the community. An exception was the marriage of Harry Kirkey, a Michigan carpenter, to Bertha Beardsley of Trempealeau. The operating personnel, on the other hand, did become a part of the community. The lockmaster, assistant lockmasters, the lockmen and maintenance technicians nearly all settled in the village and became part of it.

Social and political effects of the lock and dam may have been moderate but the environmental effects were more far-reaching. Conversion of the Upper Mississippi from a shallow free-flowing river to a series of slack-water pools affected the fishery and the migratory waterfowl population. Above Lock and Dam Six the change was most evident in deposition of the silt load from the Trempealeau River.

The Upper Mississippi dams created thousands of acres of permanent fish habitat which previously did not exist or existed on a seasonal basis. This change was reflected in an expanded sport fishery and a continuing commercial fishery. Common wisdom along the river has it that the Keokuk Dam blocked the migration of the paddlefish and thus eliminated that species from the Upper Mississippi. The Nine-Foot Channel Dams did not similarly affect



walleye, northern pike, white bass, largemouth bass, perch, crappie, sunfish or catfish. If the life requirements--spawning, feeding and overwintering--for each species were present in each pool this would be expected and did occur inasmuch as these sport species are found throughout the river. Habitat for small-mouth bass, a moving water species, declined following channelization.

Commercial fishing--largely carp, buffalo fish, catfish and sheephead--was augmented by the creation of pools and by the greater acreage of aquatic habitat.

Habitat for migratory ducks, geese and swans was increased by channelization. For diving ducks year-round habitat was considerably augmented but is used by the birds only during spring and fall migrations.

Land purchase by the United States increased the size of the Upper Mississippi Wildlife and Fish Refuge. Added to the existing federal lands were those lands acquired for flowage purposes but administered by the Fish and Wildlife Service for conservation purposes. The wilderness aspect of the Mississippi Valley was further enhanced by state and federal lands such as the Van Loon area in the Black River Bottoms, the Tiffany area in the Chippewa River Bottoms, the Trempealeau National Wildlife Refuge and the Hardwood Memorial Forest on the Minnesota Bluffs in Winona and Houston Counties.

In 1900, Trempealeau Bay, now part of Perrot State Park, was a deep-water adjunct to the Mississippi River and a prime recreational spot. About 1913, a drainage scheme diverted the Trempealeau River from its historic course on the Buffalo-Trempealeau County line to a course through the Bay. The Trempealeau River silt load, originating from the hilly farmlands of Trempealeau, Buffalo and Jackson Counties, began to be deposited in the Bay. Campers and sportsmen noticed mud bars where none had been before. Soon the mud bars sprouted willow thickets and the beautiful Bay became a swamp.

The Nine-Foot Channel was hailed as a means to restore Trempealeau Bay by sportsmen and the then Park Manager Pierce, "The great pool will be cleared next winter and by 1936 the



purchased tract will become a lake".29

Indeed, the willows were cleared and for a few short years the Bay "became a lake". Continued deposition of silt, however, has again turned the area into a marsh with the Trempealeau River flowing through it. In effect the river delta has been laid down in the Bay, for the past half century a portion of Pool Six.

The long-term effects of the Nine-Foot channel regionally, and Lock and Dam Number Six locally, were considerable.

River traffic, both commercial and recreational increased greatly following the completion of the Nine-Foot Channel. The development of diesel-powered towboats spurred commerce on the river in heavy bulk cargo such as grain, coal, scrapiron, sulphur, fertilizer and petroleum. Grain terminals upstream at Winona and downstream at La Crosse have been developed but none at Trempealeau.

Recreational craft, however, are launched at Trempealeau at one facility below the dam and another upstream in Perrot State Park. A transient dock at the Village moors both houseboats and cruisers.

Tourism received a boost by construction and operation of a fishing barge in Pool Seven near the Minnesota shore. Service to anglers includes boat taxi service from the Wisconsin shore as well as bait and refreshments when aboard the barge.

The summer home colony in Pool Seven below the dam has increased several fold since the Great Depression and now numbers approximately 100. The influence of the Nine-Foot Channel on this trend is not clear and is clouded by flood-plain building restrictions.

The lock and dam is a break point on the river something that did not exist at Trempealeau prior to 1936. Now all craft must stop, be lifted up or down through the lock and may pause to disembark passengers or crew for a phone call or a walk on the guide wall, (the concrete walkway alongside the lock). In August 1979, when the Delta Queen locked through downstream, President Jimmy Carter, wife Rosalyn and daughter Amy spent the time strolling on the guide wall and greeting the assembled Trempealeau citizens.

<sup>29</sup> Galesville Republican (December 14, 1933) p.5



Round-the-clock operation of the facility requires three shifts of lock tenders. This payroll along with maintenance workers means a steady job base in the Trempealeau economy. There are presently nine families in the community whose principal wage-earner is employed on the government dam. Adding other river employees residing in Trempealeau the annual payroll exceeds \$300,000. This is important to a village with a population of 1,021. See figure 9

Tourism and the recreational use of the Mississippi River has affected Trempealeau as it has most villages and cities along the river. The effect upon the fishery and the waterfowl of the Mississippi Flyway has likewise been both local and regional. But the overwhelming result of the Nine-Foot Channel has been the development of commercial use of the Upper River.

In 1940 shipping between Minneapolis and St. Louis amounted to 3,494,127 tons, in 1950: 11,025,006 tons, in 1960: 27,393,934 tons, in 1970: 54,022,749, in 1980: 63,252,000 tons, and in 1982: 74,660,831 tons. 30 See figure 10.

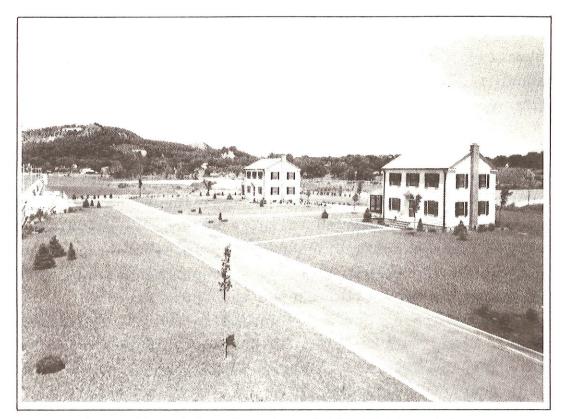
In the three years 1934, 1935, and 1936 the building of the lock and dam in the Mississippi River was the most concentrated action experienced by Trempealeau residents. The village had earlier passed through the pioneer era, the steamboat days and the building of the railroads without the excitement generated by the dam construction. Lock and Dam Number Six was important as one cog in a regional waterway: the Nine-Foot Channel.

When the construction boom tapered off the village might have reverted to its pre-dam sleepy existence. That it did not do so can be attributed to a new awareness of state and federal programs for waterworks, waste treatment technics and to the tourist potential.

In the period 1940 to 1982 commercial shipping on the river increased at an astronomical rate; the Nine-Foot Channel and development of diesel-powered towboats being the factors responsible. A concurrent increase of recreational boating has made the river that flows past Trempealeau once again a busy place.

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<sup>30</sup> Waterborne Commerce of the United States, Part 2 Waterways and Harbors. Annual Reports of the Department of the Army Corps of Engineers, (Washington, D.C.)



**Figure 9 -** Lockmaster and Assistant Lockmaster houses adjacent to lock. July, 1939. Subsequently the government went out of the landlord business, and the houses were sold and moved. Trempealeau bluffs are in the background, the Lime Co. quarry which furnished the rock for the lock and dam can be seen between Liberty Peak and Eagle Cliff. Corps of Engineers photo.



**Figure 10 ·** Modern diesel towboats move 12 to 16 barges in the Nine-Foot Channel. The Lady Rhea about 1970. Irvin Diamond photo.



Appendix. Lock and Dam #6 Workers\*, including Quarrymen and Timber Haulers 1933-1936

Adams, Gerald Adams, Robert Antheson, Tim

Babbit, Jack
Babbit, Virgil
Beebe, Clifford
Berzinski, George
Boardman, Cecil
Boardman, Frank
Bohrnstadt, Leo

Christie, James Church, Arthur Church, John Crivits, Ed Crivits, William

Daffinson, Andy Daffinson, A. Diamond, Cyrus Drugan, Kenneth

Ebersold, Ralph Elkins, Arnold

Farber, Carroll Fenton, Roger Frasch, Edward

Gibbs, Herbert Growt, Horace

Hannam, William
Hanson, Theodore
Hare, Fern
Hare, Lemuel
Hare, Lynn
Harris, Cornelius
Hayter, Clarence
Hegy, Ed
Holmes, Cyril
Hovell, Robert
Hovell, Stanley
Huckleberg, Archie
Huttenhow, DeVere

Jacobs, Theodore James, Ed James, Wendell Jessessky, Dominic Jessessky, Frank Jessessky, Vince Johnson, Edwin Johnson, Millard Johnson, Martin

Kirkey, Harry Koba, Joe Kopp, Gerry Klinkenberg, Ivan Klinkenberg, Stanley Kribs, Harry Kutchera, Alfred

Lucas, John

Malles, Earl Martin, Edward Mosher, Earl

Nichols, Ray

Onsrud, A.

Papenfuss, Morton Papenfuss, Paul Sr. Putnam, Gale Ryder, Ed

Schubert, Albert
Schubert, Carl
Schubert, E. Alvin
Schubert, Harold
Schubert, Henry
Schwert, Leo
Shrake, Henry
Shrake, Warren
Smith, Everett
Sonsalla, Edward
Spaulding, Asa
Stephan, Byron
Stephan, Wendell
Stull, Leonard
Suttie, Donald

Thornton, Wayne Trowbridge, Gerald Trowbridge, Robert

Van Vleet, Allan Wachter, Harry Wagner, Ervin Welch, John Mahlon Williams, Russell

\*These are local workers residing in Trempealeau or a dozen miles roundabout.

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