CHAPTER VI

THE LUMBER INDUSTRY

The History of Clark County, Wis., by F. Curtiss-Wedge, published in 1918, contains some pertinent remarks in regard to the lumbering and rafting operations in early days in central Wisconsin, among them the following:

"A logging camp presented to the spectator a combination of animated sights and sounds. Here, camped in log shanties, and with log stables for oxen and horses, were congregated together from 25 to nearly 100 men, according to the size of the winter's work laid out for them. Some of the men would be engaged in cutting down the pine trees and were called 'choppers;' some were engaged in sawing the logs into lengths varying from 12 to 18 feet, or more, the average being 16 feet; others with oxen were busy in skidding the logs and others called teamsters engaged in hauling great loads of logs on immense sleighs, from the skidway down to the river, where they would be unloaded either on the ice, or else put on rollways on the river bank, from thence at the opening of the river in the spring to be tumbled into the swift running stream, the last work mentioned being termed 'breaking the rollways.' Before the logs were landed they were marked on the bark on the side of the log with the owner's log mark, and stamped on the ends of each log several times with what was known as the 'end mark.' Each logger had his own marks, which were registered in the lumber inspector's office at La Crosse.

"With the coming of spring and the disappearance of the snow from the logging roads labor in the forest came to an end. The loggers now turned their energies to the log drive. Presently the rivers were freed from their imprisoning coat of ice, and spring floods were on hand to carry the logs to the mill. Unhappy the logger, particularly when his operations took him far upstream, if the melting snow and the spring rains produced only a slight rise of water. Then his logs were tied up and he must wait for a more favorable year to carry them to market. But when the river was high the red-shirts gaily set about the hazardous work of breaking the rollways and delivering to the swollen stream the accumulated harvest of the winter's work. The drive was picturesque as it certainly was the most dangerous portion of the season's operations. Down the ice-cold torrent thousands upon thousands of logs went surging and hurtling, sometimes halting at an obstruction, as if in hesitation, and piling up in wide masses, then rushing onward again with greater momentum than before.

"A crew of men furnished with boats or bateaux, with tents, blankets and provisions, would follow down the river behind the floating logs, and with pike pole and cant hooks endeavor to keep the immense sea of logs floating down the river in constant motion. Often the logs would be piled up against some obstruction, like a rock or the pier of a bridge, and they would become, what was termed, jammed. Sometimes these log jams would extend for more than half a mile up the river and the problem was how to break it. The dexterity that the men showed in this was

marvelous. The work was done at the head of the jam and the drivers attacked the logs, that, like the keystone of an arch, bound and held the great mass together. The work was dangerous and sometimes a daring fellow lost his life, but it was well paid, log drivers in the late sixties and early seventies receiving from $3 to as high as $7 per day.

"When night came, the 'Waunegan' boat that carried the tents, blankets and supplies, was headed into shore, camp was made, fires were built, and after a hearty meal, tired out with the day's work hard, the men slept the sleep of the just, to be routed out at day break for a repetition of the labors of the day before.

"Work in a logging camp was no sinecure. No union labor there, nor eight hours a day's work. The hours commenced at daylight and only ended with darkness. Teamsters generally continued their duty long after daylight had gone in the care and attention that it was necessary to give to their teams. The nominal boss of the camp was the foreman, but the real czar was the cook. He was a veritable 'autocrat of the breakfast table'; he had a helper who was termed a 'taffel' or 'cookee,' a sort of assistant cook. When meals were ready he did not announce that 'meals were served,' but he announced the same fact in two stentorian words, 'Grub pile.' The menu had a sameness that bordered somewhat on the monotonous. Breakfast consisted of pork, beans (with or without vinegar), hot biscuit with molasses, tea generally, but occasionally coffee. Dinner was the the same as breakfast varied occasionally with stewed dried apples, and supper was a duplicate of breakfast, except that on Sundays stewed prunes would appear on the bill of fare. Salt, pepper and mustard were served at all meals, and these were called 'knick knacks.' The drive in the spring when the ice had gone out, the river full of water, and the rollways broken, was the scene and a subject to inspire both the painter and the poet.

"When the logs were banked at the landings they were visited periodically by a 'scaler,' who measured them with a Scribner rule, and estimated the number of feet in each log, afterward giving the owner a 'scale bill' stating the number of logs scaled with their marks, and the number of feet board measure that they contained, and filed a copy of the same with the lumber inspector at La Crosse."

History of Clark County; Wedge; 1918.

The method of lumber rafting on the Wisconsin River was minutely described in an article or essay written by F. J. Natwick about 1906 while a student in the University at Madison, the material for the same being furnished by Theron Lyon, then a resident of Grand Rapids. The article is here reproduced:

"In the first place it is necessary to get the lumber into the form of a raft, and to this end the first thing after the lumber is sawed and ready for rafting is to make the 'grubs.' Nine of these grubs are used for each 'crib', the latter being 16 by 16 feet square and from 12 to 24 inches deep according to the season. During high water in spring they are made from 12 to 15 inches deep, and from 20 to 24 inches deep is the rule during the balance of the season. The 'grubs' derive their name from the fact that that is exactly what they were, being young ironwood, oak, water beech or elm trees about 2½ inches in diameter, and grubbed out by the roots, or rather the roots cut off close to the body of the tree, these roots to form the head of the grub when finished. The usual length of the grub was from 3½ to 4 feet and the diameter 2 inches except the head, which was 3½

to 4 inches in diameter and about 1½ inches thick. During the last few years of running lumber a machine-turned grub was used quite extensively, but was not as satisfactory as the old style.

"The next step is to build the bottom frame of the crib, which requires three planks each 2 inches by 10 inches by 16 feet, and three boards each 1 inch by 6 inches by 16 feet, which must have three 2-inch holes bored in them at equal distances apart, starting at ten inches from the end of each. This is usually done by laying the planks on top of each other and the 1 by 6 inch boards on them, and boring through all six pieces at one boring. These three planks are the runners, but are nearly always called 'grub plank' by lumbermen and must be chamfered (or beveled) on both ends, also boxed out around the hole to the depth of about one inch and four or five inches square to receive the head of the grub so as to keep it as nearly flush as possible with the face of the grub plank.

The next thing is to put the grubs in the grub planks, then space them apart the distance between the holes in the 'tie boards' (the 1-inch by 6-inch already bored), and slip the tie-boards to place by entering the tops of the grubs in the holes of the boards and pushing it down until it rests on the grub plank, thereby holding the grub planks an equal distance apart. The three tie-boards crosswise of the grub planks finish the frame (bottom) of the crib. The first course of lumber is laid crosswise of the crib, the same way the cross-ties run, filling in between them and one 10- or 12-inch board put outside the grubs on each end to fill out the space the grub sits in from the end of the plank. These boards are called 'flush-boards,' but nine out of ten raftsmen called them 'slush-boards.' The second course is laid the reverse of this one, and so on until the required depth of courses is obtained, always leaving the last course crossways of the grub plank.

"The next thing is to put on the 'witch-planks,' (or binding planks) which are three in number and bored to fit the tops of the grubs that project above the crib and are slipped down over the grubs onto the last course of lumber and firmly wedged there—this is the make-up of a crib of lumber.

"The next step is to take seven of these cribs and form them in a 'rapids-piece,' which is done in the following manner: Fasten seven of the cribs together in a string, holding them together with small ropes, or other means, having all grub and witch or binding planks running up and down stream in direction. Having done this and got the seven cribs in as perfect line as possible, leaving about three or for inches between each crib, it is ready for the couplings, which are usually 2 by 10 inches and 14 to 16 feet long which are laid along each side of the seven cribs and bored to fit down over the grubs, which couple the cribs in one string, 16 inches wide by 112 inches or 14 feet long, It is always necessary to use two thicknesses of these planks on each side of the piece and never break joints over the space between cribs.

"The next thing is the placing of the head and tail-blocks, which are 6 inches by 10 inches by 16 feet long, the head-block being bored to fit crossways the three foremost grubs of the piece, and serving three purposes: First, as a breakwater in going over dams and through rapids; second, for fastening the front end of the spring poles, and third, as a support to balance the oar stem on. The tail-blocks answer also for balancing the oar stem when tied up in strong currents and acts as

a rear waterbreak, as otherwise the water would rush over the tail end of the piece and sink it.

"Now come the spring-poles used to raise up the head end of the first crib, each being about 28 feet long and 8 or 10 inches in diameter on the large end, and made always of tamarack wood, the head-block being notched on the under side about three feet from each end to receive the small end of the spring-poles, one on each side of the piece. About 14 feet back from the head-block, two or three 2-inch planks are laid crossways, the piece on top of the coupling-plank and the small end of the spring-poles being fitted to the notches on the under side of the head-block, and over these planks leaves the back and large end of the pole two or more feet above the lumber. Two-inch holes are bored in the large end of the poles so they will fit the middle outside grub in the second crib, and the pole is fitted down over the grub and securely wedged. This is done by all the men standing on the back end of the pole until it is firmly wedged, their weight springing it down over the grub. It often raises the front end of the first crib nearly out of the water. If it were not for these spring-poles the first dam the piece ran over would claim victims, as has happened when spring-poles have broken in going over the crest of the dam, as the first crib on coming in contact with the slower-running water below the dam will plow to the bottom and often break the couplings and turn bottom side up, generally wrecking the whole rapids-piece and washing the men off. Good and well-placed spring-poles are absolutely indispensable in the make-up of a rapids-piece of lumber, as there in lies the safety of the men's lives, as well as protection from loss of lumber to the owners. In fact the pilot always looks over the poles and sees that they are properly sprung and wedged before starting out to run the piece over the rapids and dams.

"Next come the yokes, which are small pine trees about six inches in diameter cut in four-feet lengths bored to fit the grubs and over the joints between the cribs. These are slid over the two grubs down onto the coupling-plank, which reinforces the strength of the planks that couple the cribs together. About three or four of these on each side of the piece are shaped to receive the line (cable) in 'snubbing.'

"Next are the oars, which are made from a pine tree about 40 feet long and 10 or 12 inches at the large end and three inches at the small end. These are finished up smooth for about ten feet on the small end and throated out about two feet back in the large end, the throat being 2½ inches wide to receive the coar blade, which is a piece of good lumber 16 inches wide and 14 feet long, sawed so it will be 2½ inches thick on the back end so as to enter the throat in the stem and tapered to ¾ inch on the front end.

"After the blade is fitted in the stem then the stem and blade are laid on the head-block and balanced so that the blade end will be a little heavier than the stem, and where the stem lies on the head-block it is bored for the oar pin, which is two inches in diameter. The hole in the stem is slotted out on the upper side of the stem lengthwise to avoid binding on the pin in dipping the oar. The stem being all ready and pin in place in the center of the head-block, the oar rings (two iron rings about four or five inches in diameter with a two-inch hold in the center) are slipped over the pin resting on the head block. The wear comes on these rings instead of the wood and makes it much easier pulling the oar. The next thing

is shipping the oar stem, which is done by men enough to lift the stem up and let it down over the pin in place.

"This completes the rapids-piece ready for running. From two to four men on each oar are used for running the rapids, the number depending on the height of water, the man handling the head oar being the pilot, the one handling the tail oar the steersman. The steersman receives his orders which way to pull from the pilot by motion of the hand or by word, as the case may be. After running the rapids-pieces over the rapids to Point Basse (one mile below Nekoosa) all rough water is passed until the Dells at Kilbourne are reached. At Pointe Basse three of these rapid-pieces were coupled side by side, which was called a "Wisconce raft.' The 'bunk-houses' (small houses large enough to hold two men for sleeping —about 4 by 6½ by 3 feet high) made cookery raft—fixed up. The number of 'Wisconce Rafts' in a fleet of lumber might vary, but was usually about ten; and the crew on each 'Wisconce Raft' was made up of two men—a bowsman and a tailsman. The bowsmen were expected to have had some experience in river running and be able to follow the pilot. The tailsmen were usually called 'suckers,' never pulling unless told to do so by the bowsman, and generally the bowsman could make the 'sucker' do most of the work, if he were a good bowsman.

"Everything being ready at Pointe Basse, the pilot calls out, 'Tie loose,' he starting out ahead, the rest of the fleet to follow him about 30 or 40 rods apart. Now they have clean running if they keep in the water until they get to the head of the Little Dell, where the fleet is tied up, which, with good water and good luck, should take not more than two or three days. When one of the rafts gets 'stuck' or 'hung up' on a sand bar or island, you hear the cry of 'tie up' sent from one raft to another and every raft ties up at the first chance. The tailsman jumps ashore with the line (the line or cable is 1¼ inches in diameter and 125 to 200 feet long) when the raft touches land, and finding a tree or stump, takes two turns around it and one around the line, and then holds the end while the bowsman with the other end of the line on the raft pays it out around the snubbing-yoke, gradually checking the raft until it stops; then the tailsman makes a fast hitch on the tree.

"After tieing up at the head of the Dells the crews are doubled up and the rafts dropped through the Dells below Lone Rock. Then each crew of two takes its own raft and starts for the mouth of the river, which with fair water and good luck should be made in from six to ten days from Pointe Basse. It has been made in five days. When reaching the mouth of the river the 'Wisconce rafts' are all coupled together into what is called a 'Mississippi raft,' after taking a number of spring-poles and making a set of snubbing-works. The line for a Mississippi raft is usually from 1,500 to 2,000 feet long and is always laid in loops back of the snubbing-works, so as to avoid fouling when being rendered out through the works.

"Mississippi rafts were frequently kept running day and night. The market for lumber run by water might be anywhere, according as a demand could be found for all or any part of the raft, but it was often contracted for beforehand, by parties in Dubuque, Rock Island, St. Louis or other cities along the water-route.

"The men usually received pay by the trip, either so much to the mouth of the Wisconsin, or to market, the prices ranging from $70 to $125 per trip for bowsman and tailsmen. The pilot received about double that amount. Some pilots, however, ran by the season.

"In making these rafts no nails or spikes were ever used; everything was fastened with wooden wedges and pins. All coupling-planks, binding-planks, yokes, spring-poles, etc., were securely wedged down.

"In running the rapids and dams in high water a ¾-inch line was often used the whole length on each side of the rapids-piece, making a half-hitch around each grub, so that in case the rough water should break the couplings the cribs would be held in place with this line. This was usually called a 'sucker' line.

"The farthest point from which a fleet ever started down the river was Merrill, and from Merrill to Nekoosa there was a series of falls and rapids more or less dangerous for the raftsmen. At Merrill there was what was called the Jenny Bull Falls; at Wausau, the Big Bull Falls; at Mosinee, Little Bull Falls; at Stevens Point, Conant's Rapids; at Grand Rapids, the Grand Rapids (one of the worst of the series); at Port Edwards, Clint's Dam, now known as the Port Edwards Dam; at Nekoosa, Whitney Rapids, where the dam now is. Pointe Basse was about where the ferry crossed the river below Nekoosa. Many a man gave up his life in running these various rapids and falls."

Old Wisconsin River Pilots.—In the year 1888 John Farrish ran the last fleet of lumber from Biron, where the lumber had been manufactured, to the St. Louis market. In the early history of Grand Rapids logging and lumbering was the only industry this locality was blessed with. Now it is almost extinct. The writer can recall when lumber was plenty in the Wisconsin River so that you could cross the river on foot on "rapids-pieces" that were fastened in side by side. In those days no lumber was shipped in by rail. Now it is all shipped that way. In talking with Mr. Farrish he furnished us with the following list of old Wisconsin River pilots that resided in Grand Rapids: Chauncey Wakely, Louis Eaton, Tim Hurley, John Farrish, Frank Gardepe, Ben Buck, Edward Wheelan, Joseph Whitney, Lewis Yannah, L. Dennie, Pete Laramie, Manley Hill, Ren Hathaway, Frank Brown, Andrew Marshall, John McAvoy, Martin Corcoran, Hank Ticknor, Russ Roberts, John McVey, William Corcoran, Mike Corcoran, Phil Ward, Fred Case, Dan Case, Hans Bugsby, Pat Garihee, H. Rablin, Chas. Richards, Richard Harvey, Bat LaVigne, Jim Quick and Rufus McFarland. Besides there were ——— Shaw, of Buena Vista; Geo. Porter, Ed. Casey, Dick Porter, of Necedah; Jim Clair, Tom Cashlin, Sill Clair and Jack Mahoney, of Portage; old Geo. Crawford of Stevens Point; Gus Lavign, Leny Lavign and Joe Jombeau, of Frenchtown, now Port Edwards; Lawrence Ward of Dexterville; Eric McKay, Hank Sales of Wausau; George Brenner, drowned at Yellow Banks; George Willmot and Ed. Ellis, of Plover; and W. M. Carpenter of Conant Rapids.

Some interesting facts are also contained in a letter from Jack Clarke, an old time Wausau lumberman, which was published in the Wausau Pilot and Reporter a few years ago, and which reads as follows:

"Dear Old Wisconsin River Pilot:

"Down here in the Sunny South, enjoying the balmy breezes, living on one of the finest old plantations in Virginia, my thoughts will revert back to old times and recollections of the rafting days on the old Wisconsin and its sturdy, brave, courageous pilots who used to tramp its banks, wade its depths and shoals and camp upon its banks in its trips down it. They were strong of heart and muscle, true of purpose, and persevering until all obstacles were overcome in the perilous

work. Deeming it but justice to their memories that their names should be of record and pass into history, as they deserve, I know of no medium than the old paper, Wisconsin River Pilot, to record it in. The mere mention of some of the names will awaken recollections of many incidents to the old pinery men who are now fast passing away. I have endeavored to recall the names of all of them who were river pilots and well known as such from 1840 to 1875, when the railroad virtually closed the business, though some rafting has been done since and probably will be for years yet. I can't say the list is complete, as there were some French pilots about Grand Rapids whose names I never knew; otherwise the list is nearly complete. There may be a few omitted that I have forgotten. I have called them by the names they were known by on the river. Many of them are dead and gone; several were drowned; many have strayed to distant lands and a good few are yet knocking about in the pineries.

"Old Kentucky Bill went out in the Buena Vista tornado; Pete Snider was drowned at Grand Rapids in '49. Lazy Phelps, Fay, Hall and Lee were drowned at Little Bull. Maj. Fisk was drowned at Big Bull. Few, if any of them ever became rich, as they were men of noble, generous impulses, which are the kind never known to accumulate much of the world's goods. Honor to whom honor is due. Poverty is not disgraceful but very inconvenient, especially in old age.

"Old Drover was the first man to run Grand Rapids. Levi Stowe was the first man to run Little Bull. Prayer was had on the piece before starting. John Stackhouse was the first man to run Big Bull Falls.

"John Eckels, Jno. Kingston, Old Judd (Horace), McCauley (halfbreed), Tom Hillsworth, Sam Harris, Davy Crockett (Cattin), Old Kentucky Bill (Wigginton), Sailor Jack (Hawn), Bill Watts, Pat Smith, (O. B.), Little Gregg (died of cholera at St. Louis), Little Bat Levine ('good a man as no man, by krise'), Dave Fye, Lem Curtis, John G. Porter (bother by boots'), Orrin Maybee, Old Story, Jack Clark, Bill Beers, Pete Cain, Crazy Steve Woodward, A. H. Lee, Ben Jones, Ben Shingle, Tim Engler, Hank Engler, Tom Grundy, Big Hank Snyder, Buck Kingsbury, Jim Single, Azro Marvin, Alex Smith, Old Butts (Humpy), Silas Walsworth, Dick Gardner, Buckskin Brown, Whiteface Brown, Lillibridge, Big Headed Cole, Irvin Eckels, Paul La Rose, Louis Grignon, Old Dick Gardner, Ben Fulton, Maj. Fisk, Tom Avril, Job Irwin, A. H. Perry, (Commodore), Old Page (Ephraim) Pete St. Autin, Ross Gamble, Sandy Fulps, Lazy Phelps, Pete Snider, Fay Hall, John Kennedy, French Fred (Noisseau), Homer Drake, Aaron Drake, Sam Drake. Louis Craft, M. M. Charles, Lumius :Lawrence, Jimmy O'Brien, Johnny Casey, Larry Breen, Jim McHugh, Frank Rosilee, John Snyder, Hank Snyder, Alex Simpson, Ed. Simpson, John Bell, Bill Hayes, Jack Splann, Ed. Nichols, Orson Phelps, Dave Shelbarne, Bill Gilchrist, Jas. Wilmot, Frank Houston, Bill Kratzer, Old Louis LaMere, Louis Seanville, Jack Meehan, Geo. Vanderpool, Little Louis La Mere.

"This list is, of course, intended to include the 'ole stand-bys of the river. Another generation, as it were, followed in their wake, equally as proficient, but are most all living now, and it would trespass too much upon your space to enumerate them, but at some future time let the complete list of later-day pilots be published so their names can be recorded, their memory cherished.

"With well wishes for all who are alive of the old brave crew, I close, with hopes

that no worse may ever infest the banks of the dear old Wisconsin."

"Jack Clarke, One of Them."

"Fire was the dread scourge of the lumber industry. Sawmills and sawmill towns, flimsily constructed of inflammable pine, and consuming the airy fuel left by their saws, were periodically consumed by the flames. It was a rare sawmill that was not burned to the ground and rebuilt at least twice, while only one thing was more astonishing than the frequency with which sawmill towns were partially or wholly destroyed, and this was the speed with which they rose from their ashes.

"Forest fires were an appalling source of loss. As lumbering operations became more extensive, and settlements pressed in close behind, the danger of forest conflagrations steadily increased. The careless logging methods of the time, still in vogue in some parts of the United States, were an invitation to the flames. The loggers removed only the choicest pine, while on the floor of the forest they left great heaps of branches and tops, known in the vernacular of the trade as 'slashings.' Such dead material, soon dry as tinder, needed only a spark from some careless hunter's camp or farmer's burning brush pile, or a chance stroke of lightning, to set it off in an all-devouring blaze. It was characteristic of the attitude of the period toward natural resources that forest fires were merely left to exhaust themselves in their own fury, no effort being made to impede or check the course of the flames.

"The year 1864 witnessed one of the most disastrous of these conflagrations. As the result of an unprecedented drought, by the middle of May fires were running briskly through the forests on the upper Wisconsin and Black Rivers. As the season advanced and the heavens brought no relief, the whole northern woods seemed suddenly to burst into flame. From the St. Croix, the Chippewa, the Black, the Wisconsin and Wolf River pineries, and from Brown, Kewaunee and Manitowoc Counties came accounts of raging seas of smoke and fire. Scores of villages and hamlets were threatened with destruction. Wausau, Two Rivers and Neillsville fought off the engulfing flames only by the heroic efforts of their entire populations. For six weeks the northern pineries were ablaze and immense quantities of valuable timber were destroyed.

"In 1868 forest fires again ran through the northern woods. The pineries on the Chippewa, the Black, the Wisconsin, and the Wolf Rivers, and the forests in Kewaunee and Door Counties were again the scenes of wide devastation, while along the entire line of the Chicago & Northwestern Railway from Escanaba to Marquette great areas of magnificent forest were aflame."

Every step taken in the development of the Wisconsin valley has left an ugly scar on the face of the forest. It was the beaver that was responsible for the first opening of the north woods. It led the trapper and trader from the Mississippi to the head waters of the Wisconsin River.

The pioneer struck the Wisconsin River just when the Hudson Bay Fur Company failed in the line of settlement and civilization. In the wake of the trapper and the trader came the home maker and his wife. The British trader paddled his boat on every stream, and drove his dog team over every trail along the Wisconsin River to bring out furs and peltries, while the American emigrant hauled in his rude wagon the nineteenth century progress.

The saw mill and paper mill have been twin brothers in the development of this region. But they have now reached the parting of the roads. One is looking forward and the other backwards.

The drama of the forest has been played and that of the mill is now being enacted, which comes close to the everyday life of each and all of us. When the riverman had run his last raft of lumber down the Wisconsin River, it was not his intention to turn from the stream which he knew and loved. There were numerous occupations inviting him, and, whether he opened a saloon or started a bank he possessed an advantage in knowing the country and its people.

From Kilbourn to Eagle River the Wisconsin River is a succession of valuable water powers. The principal powers are located at Kilbourn, Nekoosa, Wisconsin Rapids, Whiting, Stevens Point, Mosinee, Wausau, Brokaw, Trap Rapids, Merrill, Grandfather, Rhinelander and Eagle River. The lumbermen built dams in the Wisconsin River and tributaries, including lakes at their head waters, for two purposes—one to furnish floods for driving logs and transporting lumber, and the other to a very limited extent, for furnishing power to run saw mills. For hydraulic purposes a stream has little value beyond the power furnished by it in ordinary low water periods. In its natural state the Wisconsin River carried a fairly good stage of water at all seasons of the year, but the removal of the forests of the valley caused higher water in the river in times of floods and lower water in times of drought than in a state of nature. The 1,200 or more lakes at its head waters with their precipitous banks, were designed by nature for reservoir purposes. At many of their outlets the lumbermen built dams for the purposes stated.

Many years ago T. E. Nash of Grand Rapids conceived the idea of acquiring, improving and preserving these dams and reservoirs for hydraulic purposes as the lumbermen ceased to use them, and many such were accordingly acquired, improved and operated by the hydraulic interests at Grand Rapids and Stevens Point. In aid of this project legislation was sought more than 30 years ago, and thence effort in that direction never ceased and finally culminated in the passage of Bill No. 240 S., now Ch. 335 of the Laws of Wisconsin for 1907. In brief this law authorized the Wisconsin Valley Improvement Co., a corporation organized for the purpose, to own all these dams and reservoirs and flooding rights, and to add thereto as the authorities of the state named in said Act may hereafter authorize. This legislation did not authorize the corporation to own or operate any water power, whatever. Its whole power and duties were confined to producing as even a flow of water in the Wisconsin River as practicable by retaining the flood waters in said reservoirs during times of freshets and gradually letting them off during times of low water. The improvements were thus designed to prevent destructive floods in the valley and improve navigation. The company has since built a large reservoir at Bradley, on Tomahawk River, also one on the St. Germain River and one at Lake Buckataban, and are about to construct another at Eagle River Lakes.