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LAKE FORESTER

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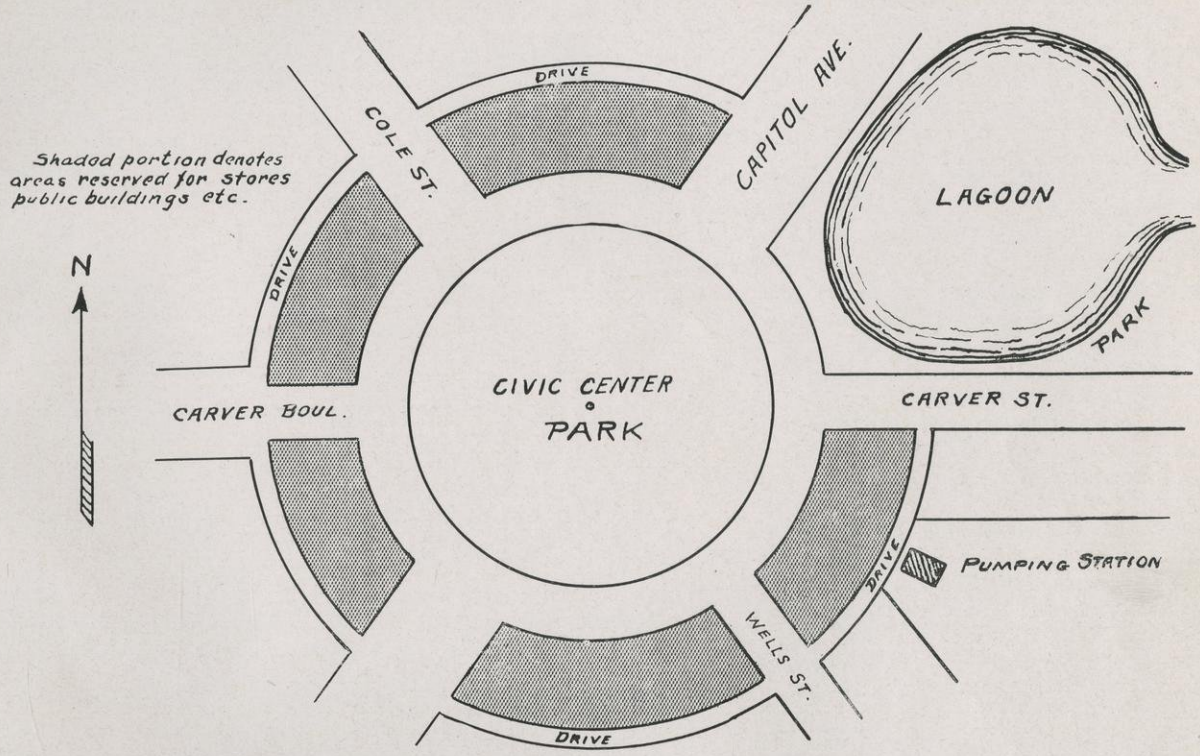


The New Pumping Station and Civic Center

This week sees the completion of the first public building in Lake Forest. The new building is the center of Lake Forest's future water supply—the pumping station.

While in no way pretentious, it is designed to be useful and harmonious with the other buildings that will soon take their places around the Civic Center.

It is one story high, designed in colonial style, and constructed of white brick, attractively trimmed in red.

The machinery that has been installed consists of a five horse-power electric pump capable of supplying 4200 gallons of water every hour—or 100,000 gallons a day. This would fill 3150 barrels; put out 2520 family washings; or supply the amount of water used on an average by each person in a day to a city of two thousand inhabitants. The pump is designed and built by the Chippewa Company.

It will be remembered that this pump was on exhibition at the LaCrosse Fair. While there it attracted not a little attention. It's chief feature lies in the fact that it pumps a steady stream of water in which there are no pulsations such as are found in the streams flowing from the ordinary pump.

The building is situated just southesat of the Civic Center. It is the first of a group that will cluster around this spot of unique interest.

One of the most picturesque elements of our early history is the story of the old Boston Town Meetings. It was about the village green, now the city commons, that the pioneers of American life met to discuss in open meeting the policies and issues of their primitive government. There every man had the right to voice his opinion, whether it was one of assent or dissent, and to vote according to the dictates of his own conscience and judgment on the issues raised. *Continued on Page 4*

LAKE FORESTER

The Well—and the Water Supply

The water supply of a neighboring city about the size of Madison was suddenly interrupted one morning not long ago. The citizens without any warning found themselves completely out of water to drink, to wash with, or to cook with.

Shoppers and clerks had to apologize to each other for dirty and grimy hands; men appeared on the streets unshaven; two of the members of the community even walked several miles to obtain a drink.

So constant is our dependence on this free element that we hardly consider its importance until something of this sort occurs to deprive us of its use.

The point is that a sure and permanent source of *good* water is one of the first essentials of a community of any considerable size. And here again the builders of Lake Forest have used discrimination and foresight.

We have had occasion before to refer to the 219-foot well that furnishes the water supply of Lake Forest, but we have only hinted at the interesting features connected with its location and development.

The accompanying sketch shows the various layers of different kinds of rock and sand that were bored through in order to obtain a satisfactory source.

In this connection we shall have to pay tribute to the geologists. The Lake Forest Company believes in taking advantage of the aid of science whenever such aid is obtainable. Consequently they went to Professor Twenhofel of the Geology Department of the University, for advice and predictions concerning the possibility of obtaining a suitable supply of water for Lake Forest.

It is extremely interesting to compare his predictions of what would be found with the actual results of the boring. Here is his letter, written before the well was started:

THE PROPOSED WELL FOR THE LAKE FOREST PROJECT

The well is estimated to have its opening at a level of about ten feet above the level of Lake Monona. For an unknown number of feet, but probably less than forty feet, the drill will pass through layers of marl, clay, and sand with the probability of striking an occasional hard bowlder near the base of the material and possibly an occasional one higher up. At the base of these unconsolidated materials there may be sands and gravels similar to those which occur in the gravel pit.

At about forty feet, provided the unconsolidated materials do not extend to a greater depth, the drill will enter into the bed rock which will consist of calcareous and glauconitic sandstones, and these will hold to a depth of between 135 and 150 feet. Water will probably be obtained from different layers of this sequence. That coming from the unconsolidated materials will be wholesome, but should not be used after a great many houses have been placed on the tract. The different layers of sand met in the bed rock will yield water in considerable quantity and the water will be generally wholesome, but extremely "hard." The quantity will be sufficient for this year, but wholly inadequate for the future. The well should go deeper and this water should be cased off.

At around 150 feet the drill will enter into a white, coarse-grained sandstone of about thirty to thirty-five feet thickness. From this an abundant supply of water is likely to be obtained. Underneath this should be about 45 feet of yellow sandstone of somewhat finer grain. The well should penetrate the upper sandstone about twenty-five feet. This would make the total depth of the well around 175 feet.

I may add that there is a probability that you may obtain a flowing well at the proposed location. Respectfully submitted

(*Signed*) W. H. Twenhofel

The actual record of the layers passed through, as shown in the picture of a crosssection of the well here reproduced, coincides in nearly every detail with Professor Twenhofel's prediction.

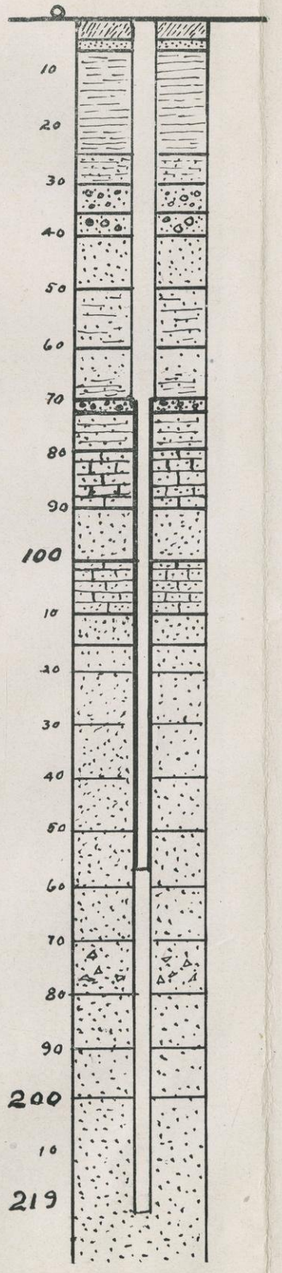
The far-sighted policy of the Lake Forest Company is shown in the manner in which they not only carried out the recommendations of science; they went beyond it. And when Professor Twenhofel recommended that the well be made 175 feet deep, it was actually sunk to a depth of 219 feet.

It will also be noted that a large supply of water was obtainable at two shallower levels. The first supply, which was large and, for the present would be perfectly wholesome, comes from the mass of unconsolidated materials above the bed rock. Here the company did not stop because there was a possibility of this supply becoming polluted after a great many houses have been placed on the tract. It was necessary to prevent any such eventuality.

The second source was found in the hundred foot layer of bed rock. This water, according to Professor Twenhofel, would always be pure. There was some doubt as to the quantity, but the determining factor was the presence of a large amount of lime and iron oxide in the water found at that level. This lime and iron oxide, while perfectly harmless in water, form a layer of yellow sediment on cooking utensils, and tend to make deposits in water pipes. The water would also be very "hard".

Columnar Cross Section

Lake Forest Well No. 1



Coarse Peat
Medium Grained Brown Sand
Fine Grey Clay

Very Fine Buff Colored Clay

Light Brown Fine Sandy Clay
Fine Gravel—Angular Pebbles ¼-½ inch size
Coarse Sandy Gravel, ½-1 in.
Brown Medium Grained Loose Sand
Fine Yellow to Brown Sand Containing nodules of fine grey clay.
Fine Light Yellow Sand Gradually becoming hard
Fine YellowishWhite Sandstone
Fine Sandy Conglomerate
Yellow Sandstone—Gradually getting more Calcitic
Very Calcitic Sandstone Fine Grained Yellow to Buff
Practically Pure Sandstone Buff Colored—Very Fine
Very Calcitic Grey Sandstone Very fine grained. High percentage of lime in suspension
Light Brown Sandstone,Fine Gr.
Very Fine Buff Col. Sandstone
WhitishMediumGreySandstone
Streaks of Yellow Sandstone
Coarse White Sandstone
Clean with strong flow of Water 50-100 gal. per hour
Very clean clear Quartz Sand of medium grain
Fine Grained Quartz Sand Many grains stained yellow with iron oxide
Medium Grained Clear Quartz Sand
Fine Grained Quartz Sand, considerably discolored with Iron Oxide. Many fragments of green shale

Clear Quartz Sand of Medium Grain

The company felt, consequently, that this water, too, should be "cased off," and they again gave orders for the drill to "plow on deeper." And deeper it did go.

On down it went through the "white coarse-grained sandstone" and into the "yellow sandstone of somewhat finer grain."

The water obtained at this depth falls far up in the central part of the state.

Professor Twenhofel smiled when asked about the possibility of future contamination of this supply.

"No," he said, "it's not likely. It's pure, well-filtered"—and then he added that it actually filtered through the sandstone from a distance that could be estimated at 120 miles without any danger of exaggeration. "And there's all that can ever be needed," he amended

As a matter of fact the well is now flowing a top flow of a hundred gallons a minute, and Mr. Webber, the Lake Forest engineer, says the capacity can be indefinitely increased at any time that it becomes necessary. Here he and Professor Twenhofel are in perfect agreement.

Orientals, and particularly the Arabs, have always included in their descriptions of Paradise, a river of pure water; to none of them is a picture—not even of a courtyard—complete without the presence of this refreshing element. This conception arises from the peculiar conditions of their life. It is a common experience for them to come in out of the desert, tired, dusty, and parched to find the Abana that waters the oasis of Damascus and makes it to "blossom like the rose." From this experience arose the conception that a clear and sparkling river was one of the chief glories of Paradise.

It is their way of acknowledging the dependence that we place in water. And it is to provide for this need for all time to come that the builders of Lake Forest have spared neither money nor labor to assure investors and home builders of the best water that money and science could provide.

NAMING OUR STREETS

In a former issue we mentioned the fact that the streets of Lake Forest have been named for persons prominent in the history of Madison and the surrounding territory. This was in accordance with the suggestion of Miss Mary S. Foster, of the State Historical Library.

We then pointed out that the name for St. Cyr Circle and Boulevard originated with a Canadian *courier du bois* who was the first white man to live in Madison. His hospitality won for him a widespread reputation; travelers frequently went out of their way to stop at "the lodge in the wilderness."

With his name was associated that of Suydam, the surveyor who surveyed the site and laid out the streets of Madison in 1836.

This week we want to introduce a character whose life touched this region of the four lakes much earlier in history than either of these two.

In the map shown on the front page you will see Carver Street, running almost at right angles to Capitol Avenue, east from the Civic Center. This street is named for Captain Jonathan Carver. Far back in 1766, ten years before the United States declared their independence, Captain Carver made an extensive excursion down the Wisconsin River to the "great city of the Saukies." Taking this city of Prairie Du Sac as his center, he made wide exploring trips into the surrounding counties and territory. He undoubtedly looked upon the later site of the capital city.

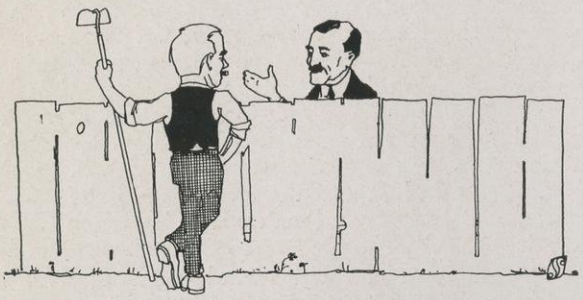
A very interesting remark which he made in a book published in 1778 was that in all the maps he had seen of this territory the rivers were shown running in the wrong direction. These maps were of French origin. Many have thought that they were made thus deceptive on purpose to keep the immigrants in ignorance of and away from this beautiful and fertile tract.

Whether this theory be correct or not, Captain Carver has the honor of being one of the first white men to explore this region and to describe its beauty. His visit was made in October when the autumn colors were most beautiful. It is no wonder that he was struck with the fascinating landscapes and the sparkling waters. It is altogether fitting that the first street to be opened up, or to be reached when Lake Forest is approached, should be named for Captain Carver.

Farther around the circle lies Wells Street. This street is named for one of the early merchants of Madison who had a vision of what the city would be. In 1850 Mr. H. C. Wells built a store on the site where the post office now stands. He was immediately laughed to scorn and called "ridiculous" for selecting a site that was so far "out of town."

History does not tell whether Mr. Wells ever "laughed best," but events have proved to what a great extent he had a right to "laugh last."

Over the BACK FENCE



LAKE FOREST TO UNIVERSITY TWELVE MINUTES

It is just twelve minutes from the homes of our Lake Forest professors to their classrooms, according to Mr. Gibson. This is the usual amount of time required for him and Professor McMurry to make the trip. Incidentally he added, they stop at Randall school to discharge one passenger, and at the Wisconsin High School for another, but they still get to their offices on the fourth floor of the Physics-Economics Building in twelve minutes.

Not long ago they left their homes at one o'clock as usual, suffered a blowout on Capitol Avenue, but were able to repair the tire and still make the trip in less than half an hour. They arrived in time to meet their one-thirty classes. And Mr. Gibson says they are not speed kings either.

CAPITOL AVENUE BECOME POPULAR

Capitol Avenue has become a favorite drive for the citizens of Madison and surrounding communities. One Sunday afternoon recently ten automobiles passed the Civic Center in ten minutes by the watch. The stream of traffic is not this great all the time, but this count does give a definite indication of the popularity the drive enjoys.

GARAGE COMPLETED

Mr. Gibson has completed the new house for his Ford. With the snap that has recently entered into the weather, the need for some sort of shelter for machines becomes very great.

The New Pumping Station and Civic Center *Continued from P. 1*

Thus the village green became the center of their government and life—and the cradle of many of our political traditions. From it sprang in large measure the system of majority government which we so casually accept now as the basis of all political action. It emphasized above all else the principles of freedom of speech and the right of individual conviction.

But the custom became obsolete when Boston became larger. It soon became impractical, if not impossible, for all her citizens to meet together and discuss their policies and plans. It was inevitable that sooner or later the plan of representative government should supersede this honored custom, and instead of every citizen meeting, groups should begin to select one of their number to represent them at the meeting. This is the system, modified, that we have today. But it is unfortunate in many ways that the common, as the place of the meeting, should have been given up at the same time as the meetings became modified. Our later cities have nearly all grown up without this centralizing factor.

The scattering of stores through the residence district is to be done away with by this establishment of the Civic Center. It has been the custom in our cities for grocery stores to appear wherever there is felt to be a need for them in the community. They have consequently sprung up promiscuously throughout the residential sections, always contributing to the convenience of the residents, but not always to the beauty or attractiveness of their respective residential sections. This promiscuousness was inevitable with the haphazard way in which the towns grew up. Because there was no one who attempted to look ahead and plan their growth, like Topsy, they have "just grown," and sometimes very ugly features have been incorporated into them.

But the builders of Lake Forest are deliberately planning to control both these factors in the growth of Lake Forest. They are also taking into consideration another factor in city development which sprang up during the Great War. Many communities at that time felt so strongly the need of some community center that they provided places where their members could gather, and especially where soldiers could be entertained—where the community could feel itself as a whole. Many of these centers continue today, and other cities are rapidly falling into line in providing such places as a civic need.

It is also significant that in nearly every case the unit of the society of a city is not felt to be the city as a whole but certain sections of each city. The natural unit of cities, when they come to the stage that Boston reached when it outgrew the town meetings, is the little community; not the city as a whole, simply because it becomes too unwieldy.

It is at the Civic Center of Lake Forest, then, that the future stores and public buildings will be built, instead of their being scattered helter-skelter throughout the community. And the Civic Center will also have that larger significance. Just as it is situated at the heart of Lake Forest, so it will be a center where the local pride, interests, and activities may be focused. It is there the housewife will buy her groceries in the morning and meet her friends for an exchange of greetings; there the father will take the car to his work in the morning and come in the evening to gather with the other members of the community for a discussion of the topics of the day and particularly of the problems and interests of the Lake Forest community.

And Lake Forest is so laid out that this center of all public interests and stores lies within easy reach of all members of the community. The farthest lot will be only a short distance away, only far enough to make a pleasant walk.

In the planning and establishment of this Civic Center the builders have certainly planned wisely. We welcome the new pumping station as the first concrete realization of their plan.