



*Calumet County Historical
Society Museum*



The Kossman Family Windmill

Lyle Kossman



Lyle D. Kossman, March 7, 1932 -February 8, 2013

Lyle served in the United States Navy where he was able to showcase his musical talents by playing in the Navy Band. Following his discharge, he married Beverly J. Petersen on July 16, 1960 in Green Bay; during this time he farmed in the Town of Chilton until 1976. He then started his automotive sales career working for Bob Pietroske, Bob Schwiderski and later Vande Hey Brantmeier Buick, Pontiac, GMC in Chilton.

Lyle's true passion throughout life was music. Beginning at the age of 14, he played for various bands in the area and played in the Gene Heier Orchestra for over 40 years and had most recently been playing with the Orville Konop Band. He had been a member of the Navy Musicians Association and was a former member of the Fond du Lac Musicians Association.

The Kossman Family Windmill



Fact Page

Era of Manufacturing:

- 1930's and early 1940's

Manufactory:

- Breyer Bros., Whiting & Co, Waupaca WI
(formally known as Althouse Wheeler Company who was an early pioneer in Windmill technology and a large employer in the late 1800's and early 1900)

Modal:

- The King

Present Height:

Unique Features:

- 3 legged Tower

Windmill Timeline:

- Purchased new in 1937 or 38' and used on the Kossman Farm on County E in Brant
- Moved to 216 Reed Street, Chilton in 1976 from Kossman Farm and shortened.
Note: This is the same property the Dr. Royal Klofanda started collecting items that did become the start of our museum.
- Moved from Lyles on 1-28-2012 to the Calumet County Museum
Tower set on 8-10-2012
Head installed on 5-30-2013

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Historic windmill provides visual salute to Calumet County agriculture

By Margaret Richman

A rare three-legged tower windmill will be erected on the Calumet County Historical Society Museum grounds on Irish Road. The windmill, owned by Lyle Kossman and in his family for more than 75 years, has been delicately disassembled and moved to its new home to await reassembly following the spring thaw.

Originally located on the Oscar and Myrtle Kossman farm on County E in Brandt, the unusual windmill is seen as a historic treasure in the long history of agriculture in the county.

"It was put up in 1936 or '37 by my parents. I was about 4 or 5-years old when I watched it go up," said Kossman. Originally a milk tester, Oscar Kossman began farming in 1921 following his marriage to Myrtle when he took over her family farm.

Windmills go back to ancient times and were originally used for milling and later for pumping water and irrigating farms. Since wood was vulnerable to weathering and rot, their progress in construction also included a change from wood to metal in the 1870s.

This metal, three-legged and still operational windmill once had Waupun stamped on the blades



before the elements took their toll. The word "king" was galvanized on the mill and tower and Breyer Brothers and Whiting & Co. cast into the gearbox. Although windmills had been manufactured all over the state, Waupun was the primary force in the industry. The Breyer Bro. and Whiting Co. had combined with Althouse Wheeler Co. and



photos by Margaret

Members of the Cal Co Historical Society Museum taking down the windmill

Milford Company, affording them the leadership in the industry.

Electricity eventually replaced the need for the wind-powered machines and production of the mills completely ceased at Milford in 1942 when the company concentrated on producing war-time products.

Three-legged tower windmills were an available option for short towers and provided some cost savings as compared to their four-legged counterparts.

"Our windmill used to pump water into the cattle tank. It was my job to keep the tank full," remembers Kossman.

When his parent's farm was sold in 1976, Kossman moved the windmill to his backyard on Reed Street. "For nostalgic reasons I wanted to keep a piece of the farm with me," he said.

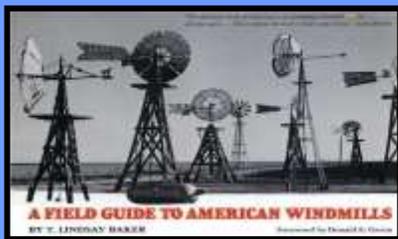
Coincidentally, his property on Reed Street carries its own historic value to agriculture in the area. The property was once owned by Dr. Royal Klafanda, an area veterinarian who housed a hatchery, and later was the first site of the Calumet County Historical Museum.

With his donation to the museum, Kossman keeps the nostalgia alive and provides a visual salute to the county's agricultural history.



Lyle Kossman in 1977 shortly after the windmill was relocated to his property





A field Guide to American Windmills

by T. Lindsay Baker

Page 152-153

Manufactured during the 1930's and early 1940's the king was the only widely sold steel windmill produced by Breyer Brothers, Whiting and Company of Waupun, Wisconsin. The mill, made in an eight-and-one-half-foot size, is one of the simplest of all the self-oiling steel windmills, having only a minimum of moving parts

In operation pumping water, the wind wheel of the King produces rotary motion which is carried by a steel main shaft to a pinion gear at its other end. This shaft turns in bronze bearing, chosen by the maker because "we have found that a good Bronze Bearings, well oiled, is the Best bearing to use on a back-gearred windmill, as a neglected ball or roller bearing is short lived, and nothing is more neglected than a Windmill." The teeth on the pinion gear mesh with those on an "internal" crank gear which turns on its own shaft mounted in the main casting of the mill. A steel pitman connects a wrist pin on the back side of the crank gear with a steel pump rod, which moves up and down on a steel guide and passes through the bottom of the main casting by way of a protected opening. Beneath the head of the mill the steel pump rod fastens at a swivel casting to the wood rod within the superstructure of the tower.

Lubrication on the King is equally simple. The main casting serves as an oil reservoir and the main bearings are



lubricated by the action of the crank gear caring oil to the level of the main shaft and crank-gear shaft. After oiling the moving parts, the lubricant drains back to the reservoir to be used again. The main casting of the mill is made somewhat different from that of the most self-oiling mills in that it extends up to the top of the head, covering a substantial portion of the moving parts but leaving one side open for maintenance and repair. The open side is protected by a special formed galvanized sheet-steel cover, which, according to the maker "fits so nicely that it is impossible for any rain, sleet or duct to enter."

The wheel of the mill is placed slightly off center. In that position it automatically tends to turn away from increased winds and at the same time toward the vane. This action reduces the surface area of the wheel exposed to the wind and consequently reduces its speed, thus protecting it from destruction by centrifugal forces. As the wheel turns toward the vane in governing, the linkage in the regulating system causes the outer end of the vane to pivot upward on a specially designed vane hinge casting. When the wind speeds subsides the weight of the raised vane causes the wheel to return to its initial position at a right angle to the van and consequently again facing the wind squarely, giving the mill a regular rate of operation. When the mill is shut off by an operator on the ground or when it governs completely out of high winds. A friction brake engages at the hub to prevent the wheel from turning.

Construction of the sheet-steel portions of the King is as uncomplicated as the other aspects of the mill. The wheel consists of curved galvanized sheet-steel blades attached with riveted sheet steel wheel clips to curved bar-steel rims. These rims are bolted to stem arms that themselves are bolted to the hub casting. The vane is formed from a single piece of galvanized sheet steel that is crimped around its outer edge and is riveted to an angle-steel vane stem. This stem has a diagonal steel support from the top of the head of the mill, as well as additional lighter braces. The vane sheet bears the sole ornamentation on the mill, the black stenciled inscription, "King MFD by Breyer Bros. Whiting & Co, Waupun Wis."

King steel windmills were sold primarily in the upper Midwest, where they are most often seen today. In some areas they are still a quite common element of the rural landscape. When they are observed in the field, the mills are very easily identified from there characteristic ironwork and distinctive vane design.

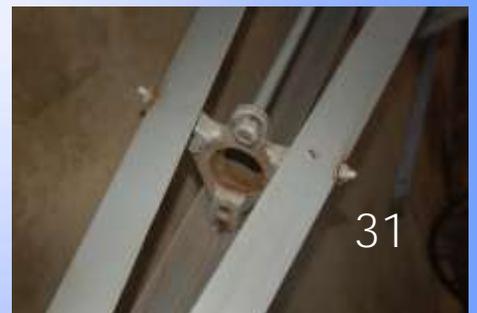
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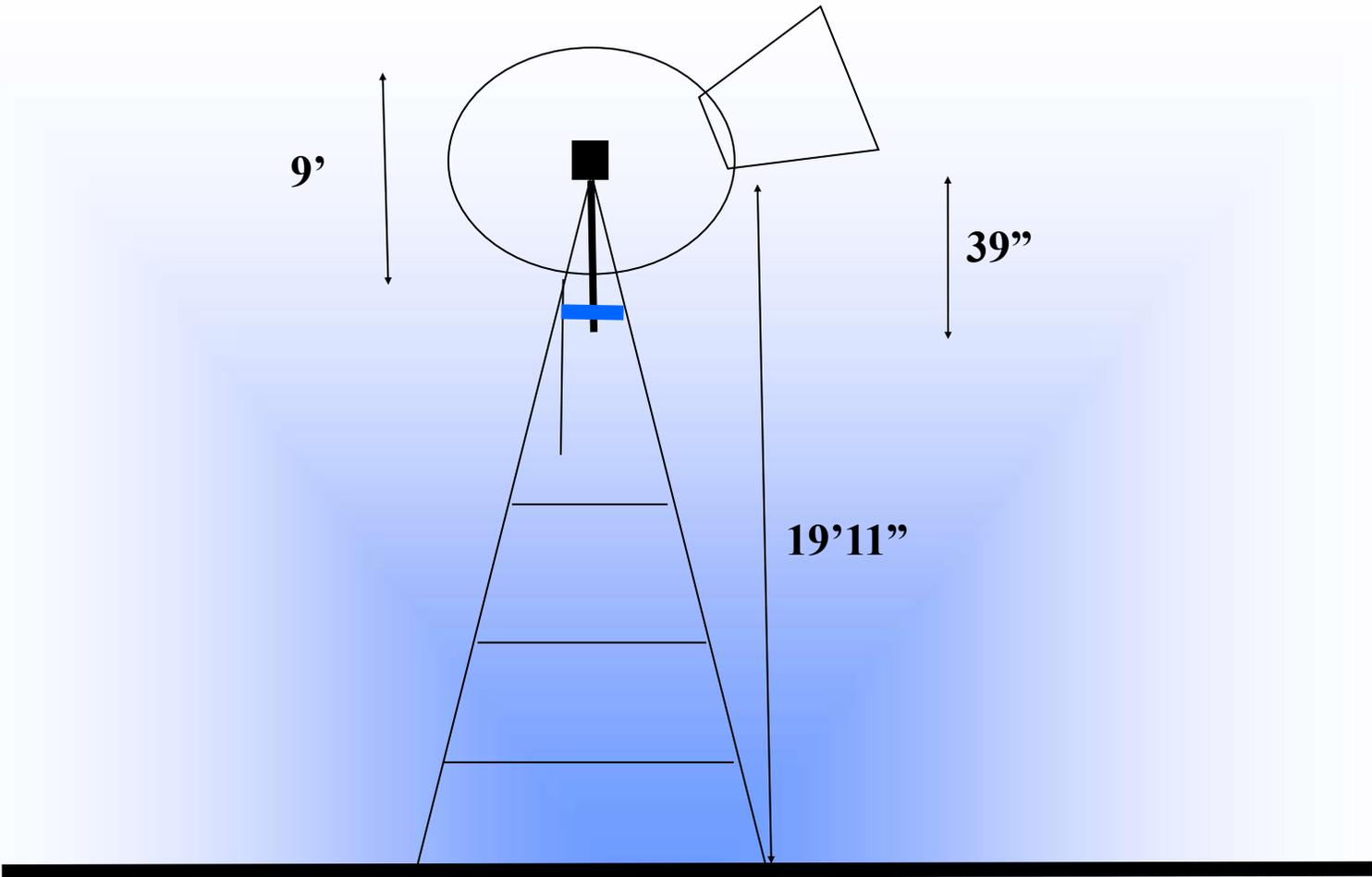
And what they



Parts

are (See page 11)





Details On Windmill Pictures

Picture #	Description
1	Ball bearing cup with new grease fitting
15	Same as 8 but with 1/2 ball bearing in cup
27	Same as 8 and 15 but with all bearings in cup
28	Ball cup inside view
19	Top of windmill wear ball bearing cup rides
33	Windmill on ground
22	Brake before clean up and paint
23	Another view of # 7
30	Close up of brake
17	Another view of # 7
7	Windmill on ground
2	Brake
14	Completed brake
16	Close up of brake material, rivets measurement
5	Brake with new brake material attached
4	Brake drum and area where brake attaches- brake is removed
9	Brake before clean up and paint (still attached)
3	Brake drum with brake removed
12	Another view of #4
29	Picture of pulley
13	Pulley wheel cleaned up and painted
6	Pulley that pulls the tail into brake mode
20	Pulley
25	Pulley
10	Areas where oil drips into line to keep head oiled
24	Close up of brake material and rivets
31	Lower windmill support
26	Inside of head and area where gearing can be changed and oil reserve
32	Name plate on head

Miscellaneous Details

- The head holds 2 QT's of oil. We used 85w-140
- The ball bearing cup holds 19 steel 1/2" bearings. The grease fitting was added when moved to the museum
- We added a Metal-Free Brake and Clutch Lining, 3/8" Thick, 2" Width, 3' Length SKU 6175K842 from McMaster-Carr and was cut down to 1 1/2 inches wide
- There is a set of legs for the tower at the museum
- The steel rod that comes down is thought to be a stabilizing rod.
- We used Randy Bodinger and his bucket truck to lift the head off and then in the tower

Windmill Team

Mike Pichee

Herb Buhl

Herman Pagel

Terry Friederichs

Steve Keuler

Margaret Richman

... and many others!