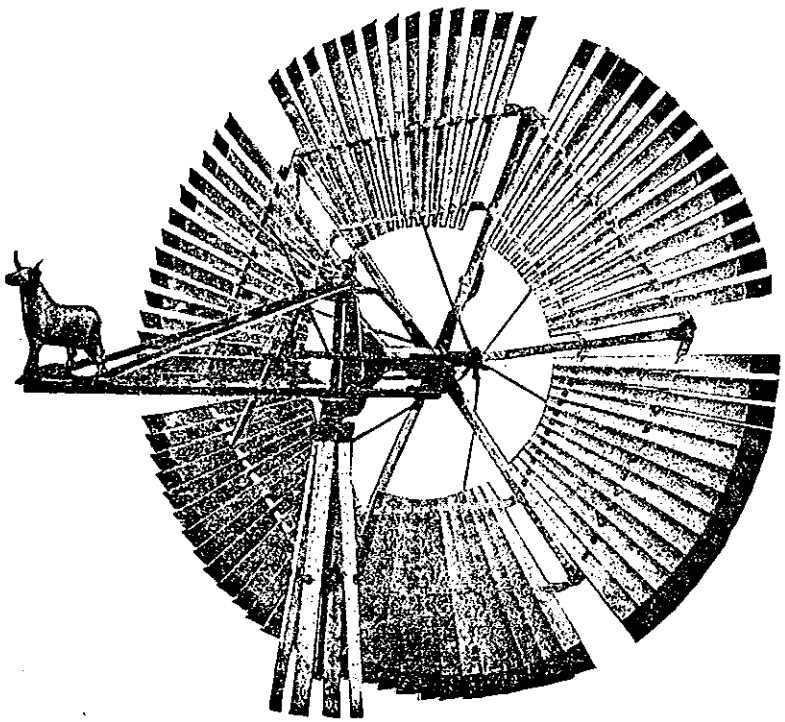
THE "BOSS" WIND MILL
DEMPSTER MFG. CO.
DES MOINES, IOWA
1897 — 1910

THE "BOSS" WIND MILL

VANELESs OPEN WHEEL



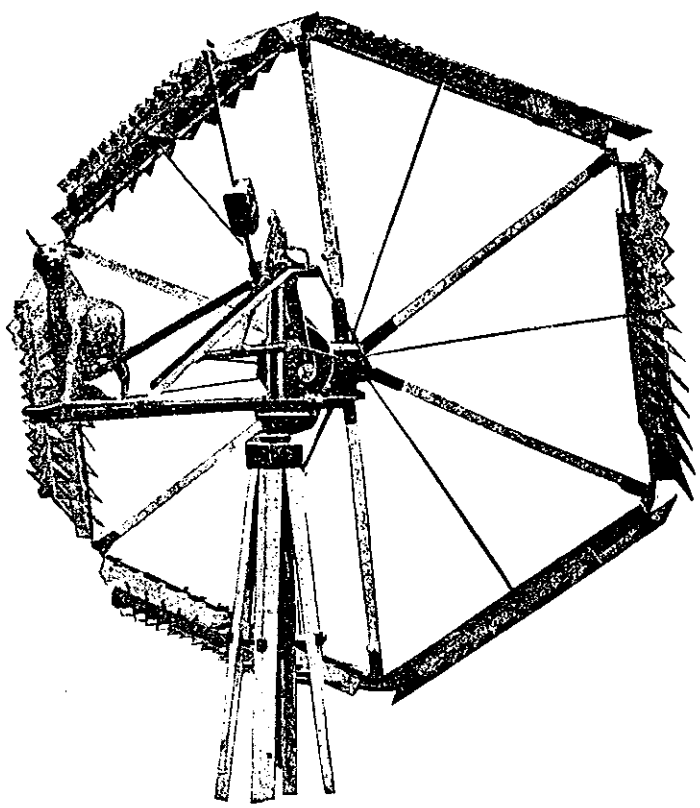
The "Boss" has lesa parts than any other Vaneless Mill

Absolutely Noieless, powerful, perfectly balanced, no oil required.

The "Boss" has no more parts than solid wheels.

Made in the following sizes: 8 ft. 10 ft, 12 ft.

Oak arms, Cypress rims, Cypress slats.



Not affected by sudden gusts or changeable wind.

Requires no brake.

The wheel never turns faster than its regular number of revolutions per minute—it can't

It never jerks the pump.

This illustration shows the "Boss" Mill at rest—out of the wind—and in this position it remains absolutely motionless—it defies the storms. A "Boss" Mill was never known to blow down. Just notice how few joints—each rod fastens the section to sliding spider direct. There are no elbow joints.

GENERAL APPEARANCE

"MOST BEAUTIFUL MILL THAT EVER TURNED IN THE WIND"

The wheel on the "BOSS" Mill is painted Red, White and Blue and is a beauty and an attractive ornament to any farm yard.

The sections and fans are white with red tips and the trms are blue.

The Bull (which we use for a balance weight) stands out prominently, with his nose always toward the wind. The name "BOSS" is stenciled on each side of the Bull and is plainly visible from the ground.

GENERAL CONSTRUCTION

One of the points of great strength is the "triangle frame"—a method of construction found only on a "BOSS." The main frame, of the engine part of the mill, is made of stel angles running from the main spider support, out to where the Bull balance weight is placed. The steel angles are securely bolted to the main casting—one on each side. From the top of the 2-inch iron pipe stem (which forms the center of the "triangle frame") two steel angles go down and join the steel angles which form the lower part of frame, at the point where the Bull weight is placed. In the opposite direction, two heavy steel rods are placed which run down from the top of the iron pipe stem, to the main spider support, completing the "triangle frame." The Bull weight, together with the weight of the frame, exactly balances the weight of the wheel and the result is a PERFECTLY BALANCED MILL.

The main casting is made very heavy and strong to support the "triangle frame," which is bolted to it and to withstand the severest strains which come in times of heavy winds and storms.

The Crank plate is strong and heavy and has holes for three different lengths of stroke, from 4 to 8 inches, depending on the size of the wheel.

"The SLOTTED SHAFT," patented and controlled by us, is the one feature which has made the "BOSS" open wheel, vaneless mill a decided success.

The "Slotted Shaft" has enabled us to perfect a method of construction which does away with about one half the number of parts and joints which are required in the construction of other vaneless mills. This feature absolutely prevents the twisting off of the twin pull out rods, which are attached to the swivel in the cross bar casting.

A galvanized sheet steel SHIELD is placed over the "slotted shaft" and all parts which work in connection with it, to keep out all snow and sleet in winter.

The balance weight can be placed at any point on the steel weight bar, to correspond with the load on the mill.

The Pitman Pins are accurately turned out of tool steel and these work in the upper and lower end of the Hard Maple Pitman and require No Attention or Oiling.

THE WOOD PARTS

The Arms are made of the finest grade of select White Oak.

The Rims and Slats are made of the finest grade of select Cypress and will last ten times as long as any Pine Rims with Poplar Slats. This we absolutely guarantee.

THE PAINTING

Each section of Fans is put together, then entirely submerged in White Lead and Oil—then thoroughly dried—then submerged again and allowed to dry, then the last coat put on with a brush. This dipping process allows every crevice in the wood to be thoroughly covered with paint and insures long life.

BOXING

The two sets of boxing for shaft and also the Pitman are made of special, select EXTRA HARD Rock Maple, which we treat by a special process of boiling in oil. This boiling process takes a long time, but when completed, it is not necessary to oil the mill so often.

Think of having a Wind Mill that never compels you to climb the tower and risk life and limb to oil it frequently as is required by other Mills.

These Hard Maple Boxes, made by our process, never wear out—the older they get the harder they get—but the lubrication always remains in them.

PERFECT REGULATION

The manner in which this mill regulates itself is one of the principal features, on account of the simplicity of it. Between the outside and inside rims of each section of fans, we place a heavy casting or tie. This is placed there for a two-fold purpose. First—The weight of these castings acts as a governor for the wheel, the same as the governor balls on an engine. After the wheel reaches the maximum speed, these weights cause the sections to gradually clos and on account of this regulation feature, the "BOSS" Mill never turns at more than its regular number of revolutions per minute and never jerks the pump.

Second—This casting or tie between the two rims on each section binds the two rims firmly together and the sections can never get out of place or flop in the wind.

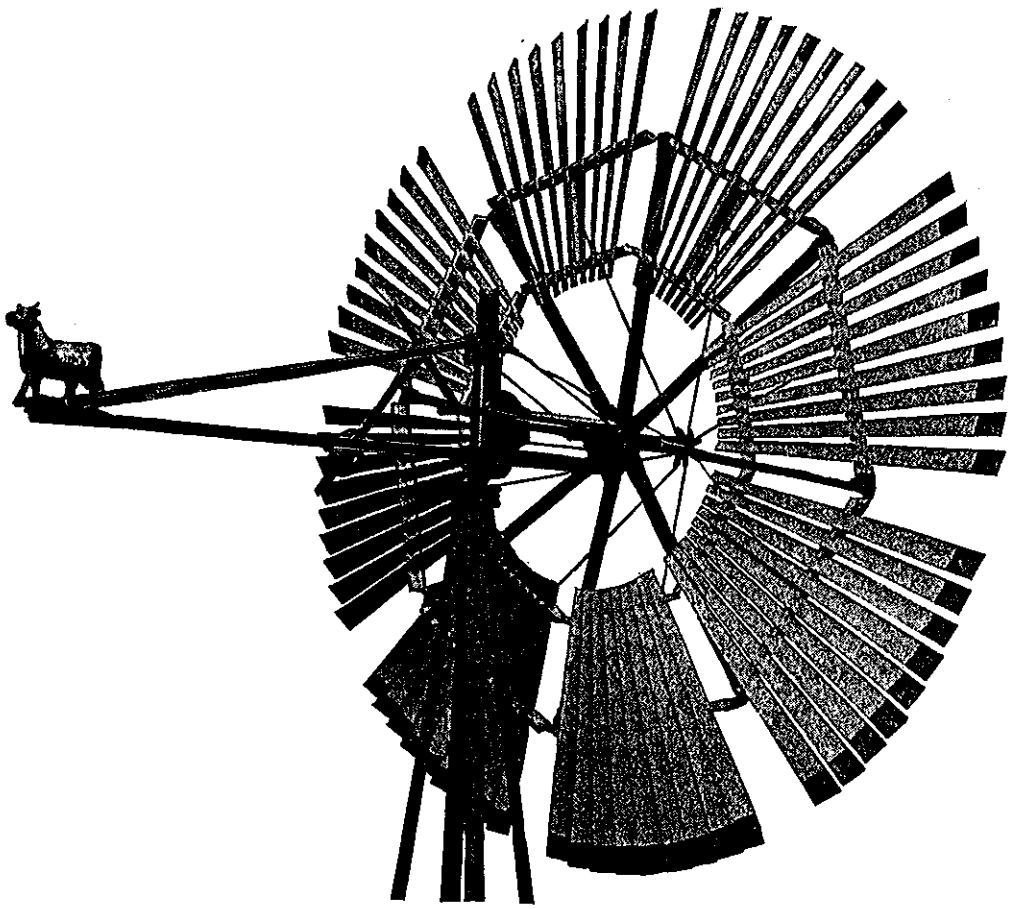
This iron tie is firmly bolted to each rim of each section of the wheel and a steel rod runs from this tie to the sliding spider at the other end of the main shaft. No elbow joints. When the wind blows in gusts or is unsteady, the speed of the wheel is regulated by the sections closing and opening. A heavy gust of wind will press the outer ends of the sections of the wheel forward, forcing the steel sliding rods in against the pressure of the regulating weight.

Each section of the wheel is bolted to the Oak Arms by putting a steel rod through the full length of the outside rim, fastening together firmly the outer ends of the Oak Arms, and in this way making a complete steel band around the wheel, the same as a tire on a wagon.

Our patent hinge at the outer end of each Oak Arm, on which the sections turn in and out, is so constructed that sleet and ice cannot interfere with its working in the winter time.

THE "BOSS" WIND MILL

VANELESS OPEN WHEEL

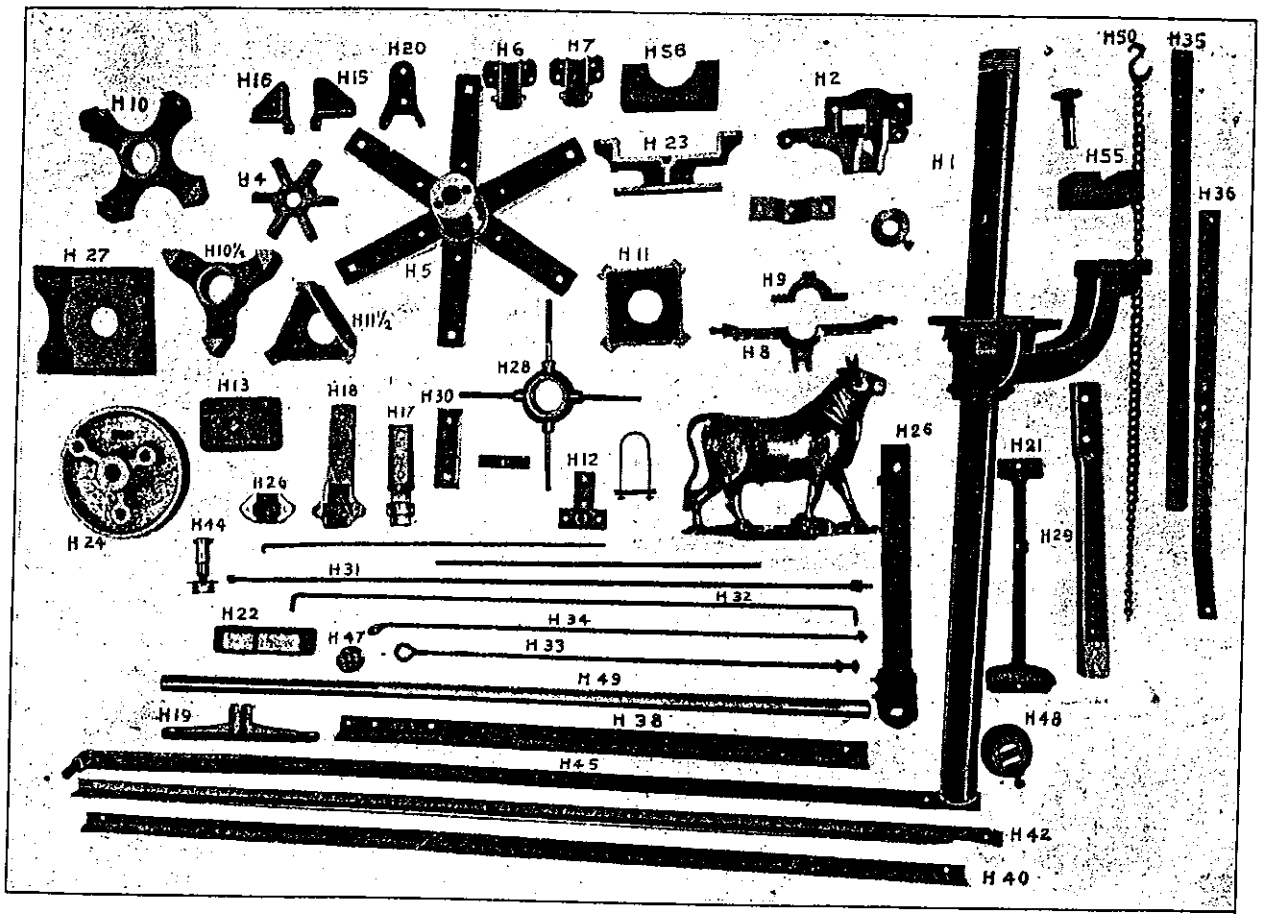


This represents a powerful Boss 12 foot wheel with 6, 8 and 10 inch stroke.

SIZES AND PRICES

Diameter of Wheel—feet	Shipping weight Pounds	Length of stroke Inches	Prices
8	450	4 6	On Application
10	500	6 8 10	"
12	600	6 8 10	"

PLEASE KEEP THIS LIST OF REPAIRS FOR THE "BOSS" WIND MILL FOR FUTURE REFERENCE



		8 ft. and 10 ft.	12 ft.
H 1	Main casting	$6.00	$7.00
H 2	Cap casting	2.00	2.20
H 3	Clamp casting on cap	1.00	1.00
H 4	Sliding spider	1.25	1.50
H 5	Spider	4.00	5.00
H 6	Male slide with key.	.60	.60
H 7	Male slide, plain	.60	.60
H 8	Lower female slide	1.00	1.00
H 9	Upper female slide	.50	.50
H 10	Storm stay for 4-p. steel tower	1.00	1.00
H 10½	Storm stay for 3-p. steel tower	1.00	1.00
H 11	Cap for 4-p. steel tower	1.20	1.20
H 11½	Cap for 3-p. steel tower	1.00	1.00

		8 ft. and 10 ft.	12 ft.
H 12	Weight bar casting, per pair	.50	.50
M 13	Regulating weight	1.50	1.50
H 14	Balance ball, 2 pieces	1.50	1.50
H 15	Section hinge casting	.40	.40
H 16	Section hinge casting	.40	.40
H 17	Male swivel	.60	.60
H 18	Female swivel	.60	.60
H 19	Cross bar casting	.50	.50
H 20	Arm hinge casting	.40	.40
H 21	Section bar casting	1.00	1.25
H 22	Counterbalance weight	.75	.85
H 23	Large box support or base	1.50	1.50
H 24	Face plate	2.00	2.25
H 25	Pitman	1.00	1.25

PRICE LIST OE REPAIRS CONTINUED

H 26	Female swivel cap ..	.30	.30
H 27	Cap for wood tower.	1.50	1.50
H 28	Storm stay wood tower	1.00	1.00
H 29	Pump connection	.50	.50
H 30	Splice irons, per set of 2	.50	.50
H 31	⅜ section rod, double nut, each	.30	.30
H 32	Umbrella rod with cotter, each	.30	.30
H 33	⅜ slide head rod with double nut	.50	.50
H 34	⅜ truss rod with nut	.30	.40
H 35	Horizontal weight bar	.50	.50
H 36	Vertical weight bar..	.60	.60
H 37	1¼ in. set collar	.40	.40
H 38	¼x1½ frame angle iron, left	1.25	1.50
H 39	¼x1½ frame angle iron, right	1.25	1.50
H 40	⅛x1¼ balance angle iron, right	1.00	1.25
H 41	⅛x1¼ balance angle iron, left	1.00	1.25
H 42	⅛x1¼ truss angle iron, left	1.00	1.25
H 43	⅛x1¼ truss angle iron, right	1.00	1.25
H 44	Wrist pin with nut, washer and cotter.	1.00	1.00
H 45	Iron plunger bar with pin	2.00	2.00
H 46	7-16 guide rod	.30	.30
H 47	Small sheve	.20	.20
H 48	2-in. pipe set collar..	.60	.60
H 49	1¼-in. main shaft ..	3.00	3.50
H 50	Pull-out chain, 36 in. long	.60	.60
H 51	Swivel rod	.40	.40
H 52	¼-in. staple and clip for counter weight.	.30	.30
H 53	⅜ twin rods, each ..	.30	.30
H 54	Wood guide for iron plunger bar	.20	.20
H 55	Small wood box, 2 pieces	.50	.50
H 56	Large wood box, 2 pieces	1.00	1.00
H 57	Inside wood circle ..	.40	.40
H 58	Outside wood circle..	.60	.60
H 59	Wood section slats...	.10	.15
H 60	Wood arm	.90	1.00
H 61	Wheel section	3.00	3.00
H 62	Bull counter balance.	4.00	4.00