U. S. "Model B" Windmills

U. S. WIND ENGINE & PUMP CO.
BATAVIA, ILL., U. S. A.

HOME OF THE U. S. WINDMILLS

CATALOG No. 16

U. S. WINDMILLS

ILLUSTRATING *and* DESCRIBING U. S. WINDMILLS, TOWERS *and* TANKS

Also manufacturers and jobbers of Pumps and Pump Cylinders, Tubular Well Supplies, Hydrants, Valves, Strainers, Pipe and Pipe Fittings, Brass Goods, Steel and Wood Tanks, Tank Trestles, Tank Heaters, Feed Grinders, Wood Saws, Horse Powers, etc.

Send for Special Catalog

U. S. WIND ENGINE & PUMP CO.
BATAVIA, ILLINOIS, U. S. A.

A Perfectly Self-Governed, Back Geared Steel Windmill

The U. S. "Model B" Windmill

Will wear longer, because the load is carried between the bearings instead of overhanging.

Has wider and larger gear and pinion.

Has longer pitman and rocker arm.

Has a longer main axle shaft.

Has fewer parts.

Will stand a harder storm.

Is better built, stronger and more durable and is more easily and cheaply repaired in case of accident than any other windmill in the world.

It is perfectly balanced on the tower.

All bearings are easily removable.

It has no wrist pin to work loose.

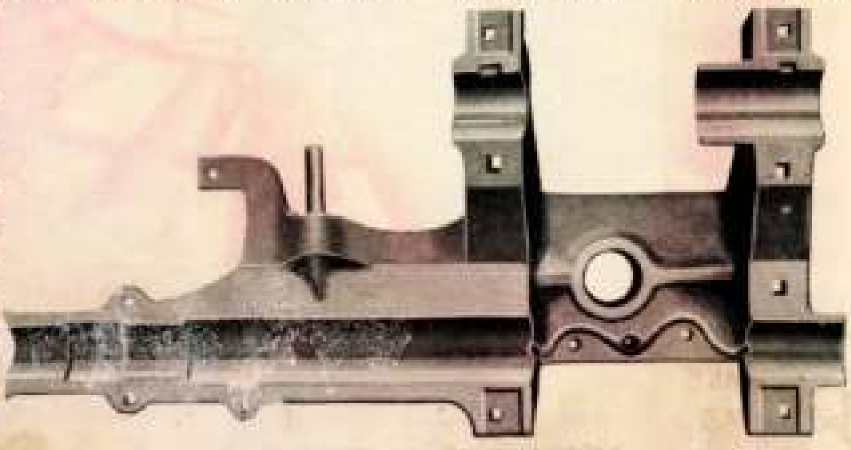
You oil it once, while you would have to oil the old style mill from three to five times.

It is fitted with combination bed plate which makes every U. S. mill fit either three or four-post U. S. steel or four-post wood tower.

The surplus oil from the bearings is carried by a clever arrangement to the bed plate, truing spider and swivel, so that your mill will always face the lightest breeze.

A Center Lift Mill

You will know the basis of the foregoing claims to superiority [illegible]en you examine the illustrations of its several parts. Of com[illegible]ding importance is the fact that the "Model B" carries its [illegible]d between two [illegible]ings in- [illegible] one side [illegible]earing. [illegible]ws the [illegible]tman and [illegible]ear- [illegible] the [illegible]nd



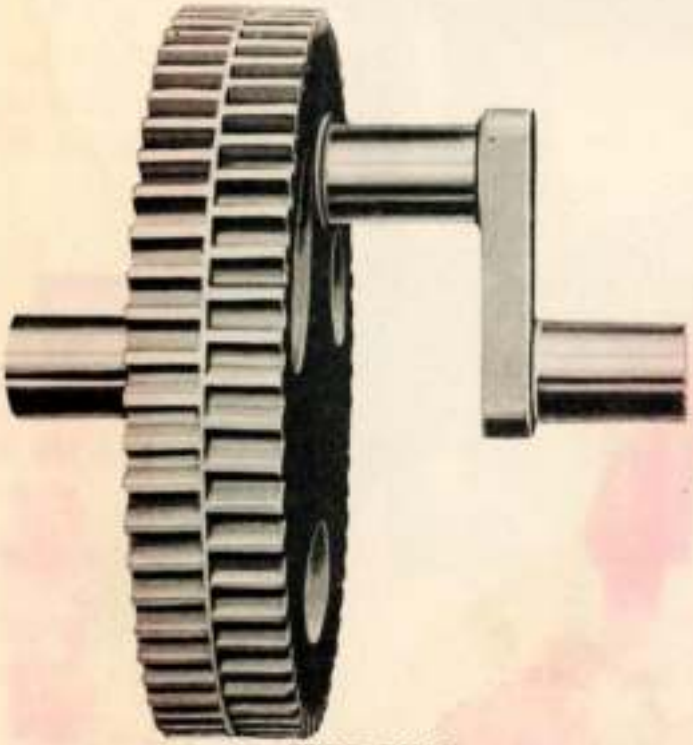
TOP VIEW MAIN CASTING

MAIN CASTING

The Step Gear

The gear and crank illustrated herewith show perfectly how this is accomplished.

The offset cog teeth which you have noticed is a "step gear." Step gears are used on large printing presses, marine engines and other machinery where great power and the elimination of noise is required. Extreme quiet and the maximum of power are secured by reason of the fact, that, while the cog on one side of the gear is in full mesh, one cog on the other side is entering mesh while another is leaving, which makes a continuous contact and three cogs in mesh all the time instead of one.



STEP GEAR

PINION

The use of the step gear and crank in a windmill forward and marks an epoch in windmill buil "Model B" is the only windmill in the world useful gear.

Partially Assembled Motor

Here we show the main casting with the gear and crank, main shaft and pinion, vane support and buffer springs in position, showing the axles in their bearings at each side, with the wide step gear and wrist pin between.

The gear wheel, wrist pin, crank and axles are cast in one piece, not a joint in it. No nuts, bolts, threads or keys to work loose and cause you trouble, and so strong that you cannot break it.

TOP VIEW

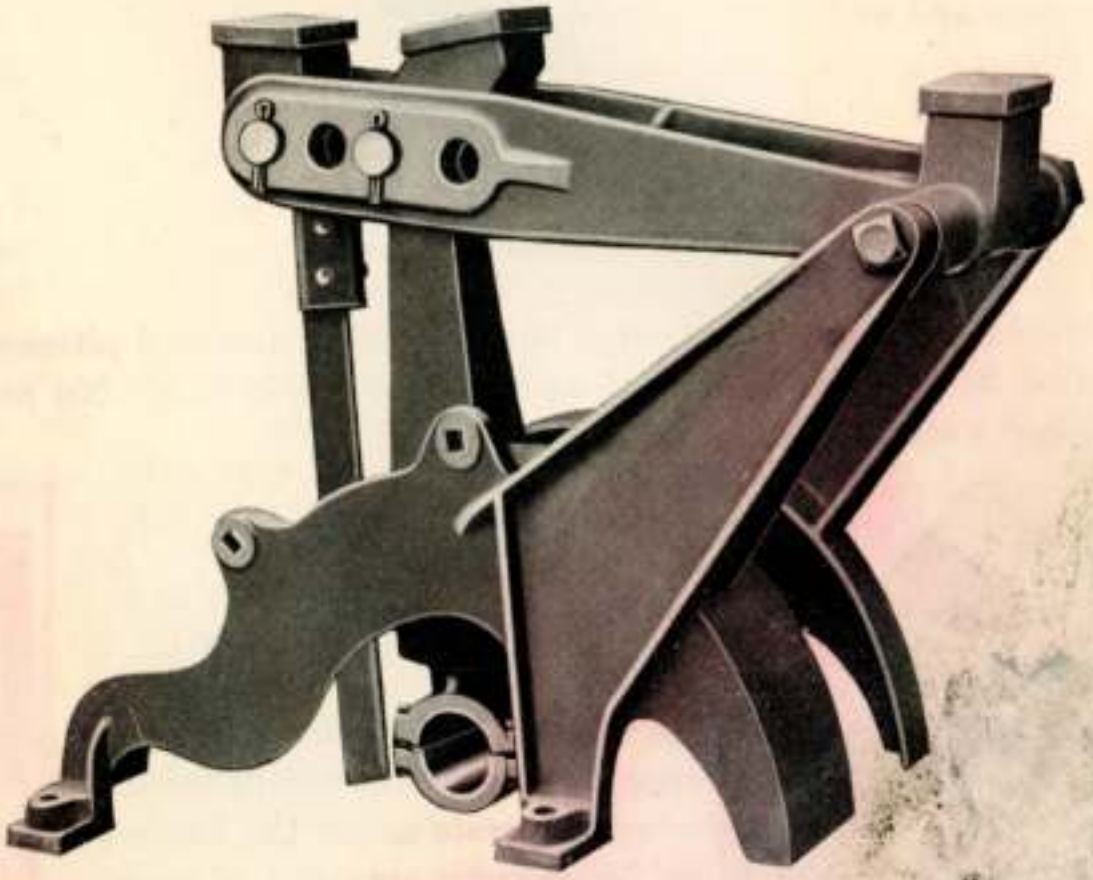
is larger in diameter and much longer than the old g supported at both ends, will always remain level. ist pins are too small for the load they have to -style wrist pins and pitman boxes wear out faster ring.

A Long Main Shaft

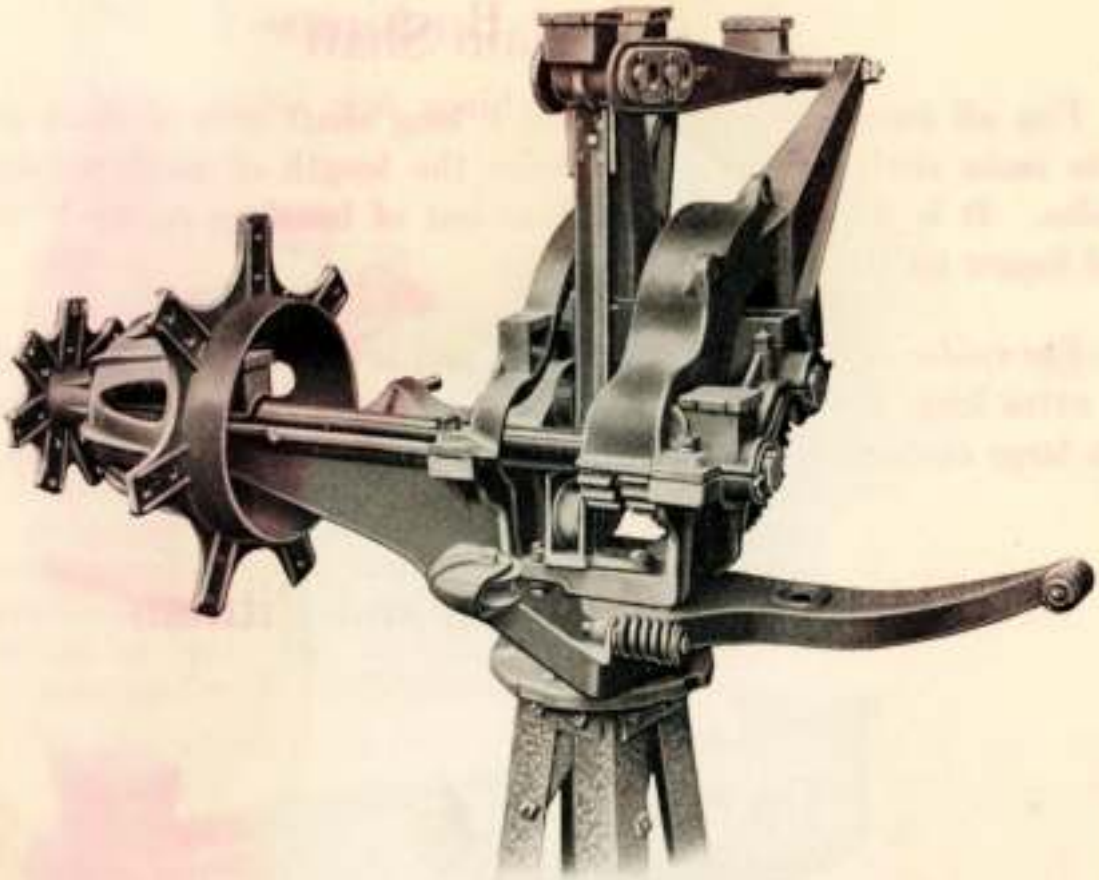
You all know the advantage of a long shaft over a short one. This main shaft is more than twice the length of most windmill shafts. It is 23 inches from out to out of bearings on an 8′ mill and longer on the larger sizes.

The spider is strong and well made and is keyed to the shaft with an extra long, well-fitted key. In the key seat in front of the key, is a large cotter pin. The wheel will not work loose or come off.

Shields, Rocker Arm and Pitman



The shields, rocker arm and pitman are strong machined. The cut shows the pitman in the middle hole at the left will give the short stroke, the one at long stroke.



ASSEMBLED MOTOR

We have placed the box, caps, shields, rocker arm and pitman in position here. The pump rod and pitman are in line. No overhanging or side lift anywhere in this mill.

A Perfect Ranch Mill

'odel B" windmill was built to meet the require-
,eat cattle ranges of the world where terrific
ds a rule and windmills operate under the hardest
ditio has won the enthusiastic approval of expe-
nen because of its ability to care for itself
itions.

lloul reel is simple and well made, and fits both
l steel towers.

REEFING GEAR

Removable Bushings

We have our box caps and bushings here which are all easily removable.

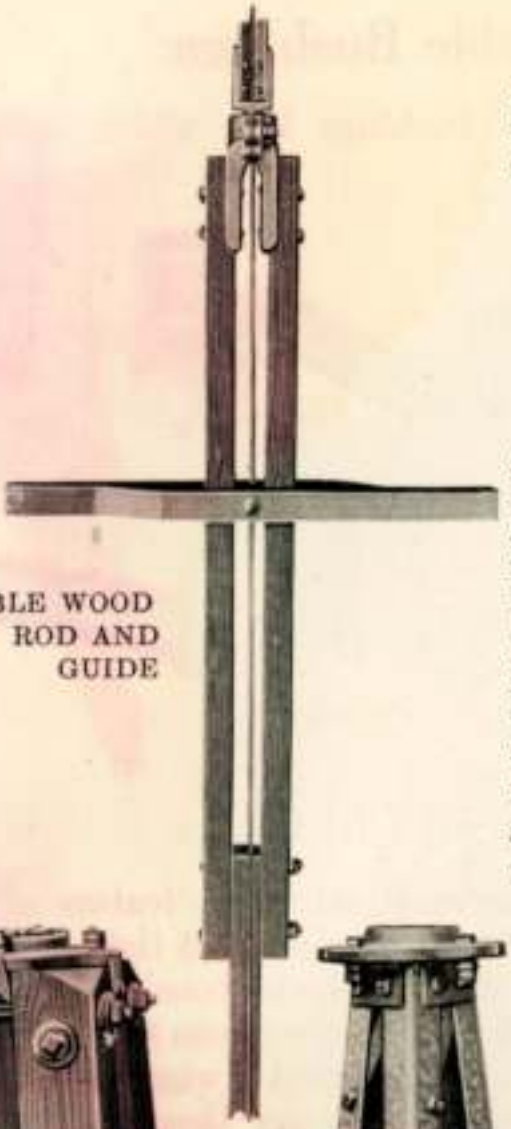
BOX CAPS AND BUSHINGS

Wick Feed Oil Cups

The size of the oil-cups is the most attractive feature of this cut. Next to keeping the bolts and nuts in place and tight, oiling is the most important. The wick-feed oiling device consists of a large cup into which the oil is poured. A tube reaches from the bearing nearly to the top of the cup, into which is inserted a wire wick shaped like the letter "U," one end of which is longer than the other. The long end goes into the tube, the short end, outside. Fill the cup with oil until it overflows the tube, which gives the mill a good oiling to start with, after which the oil will syphon over the wick at the rate of a drop every two or three hours. Use any good windmill oil.

WICK FEED OIL CUP

Our oil-cup covers are hinged and will not come off. This is important as water must be kept out of the oil cups or the wick syphon will not work.

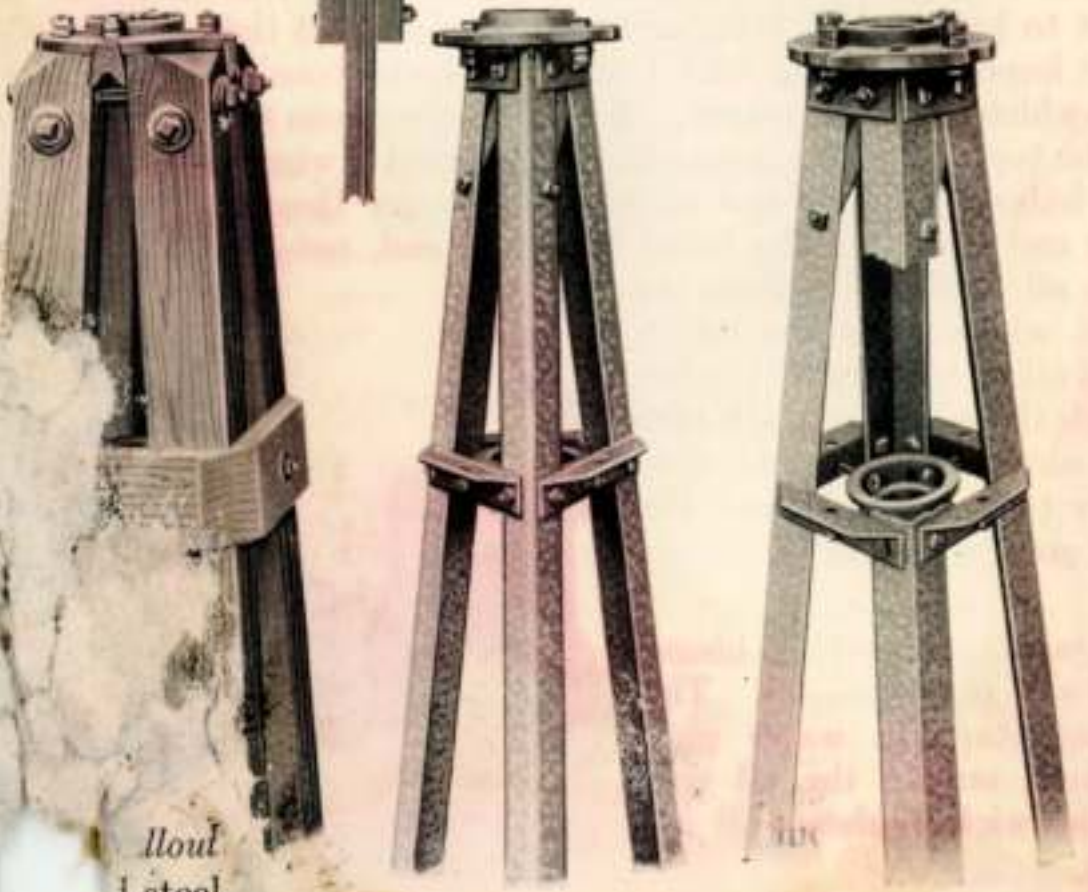


DOUBLE WOOD ROD AND GUIDE

The double pump rod and guide protects the pullout wire from wear and provides a center lift swivel.

The Combination Bed Plate

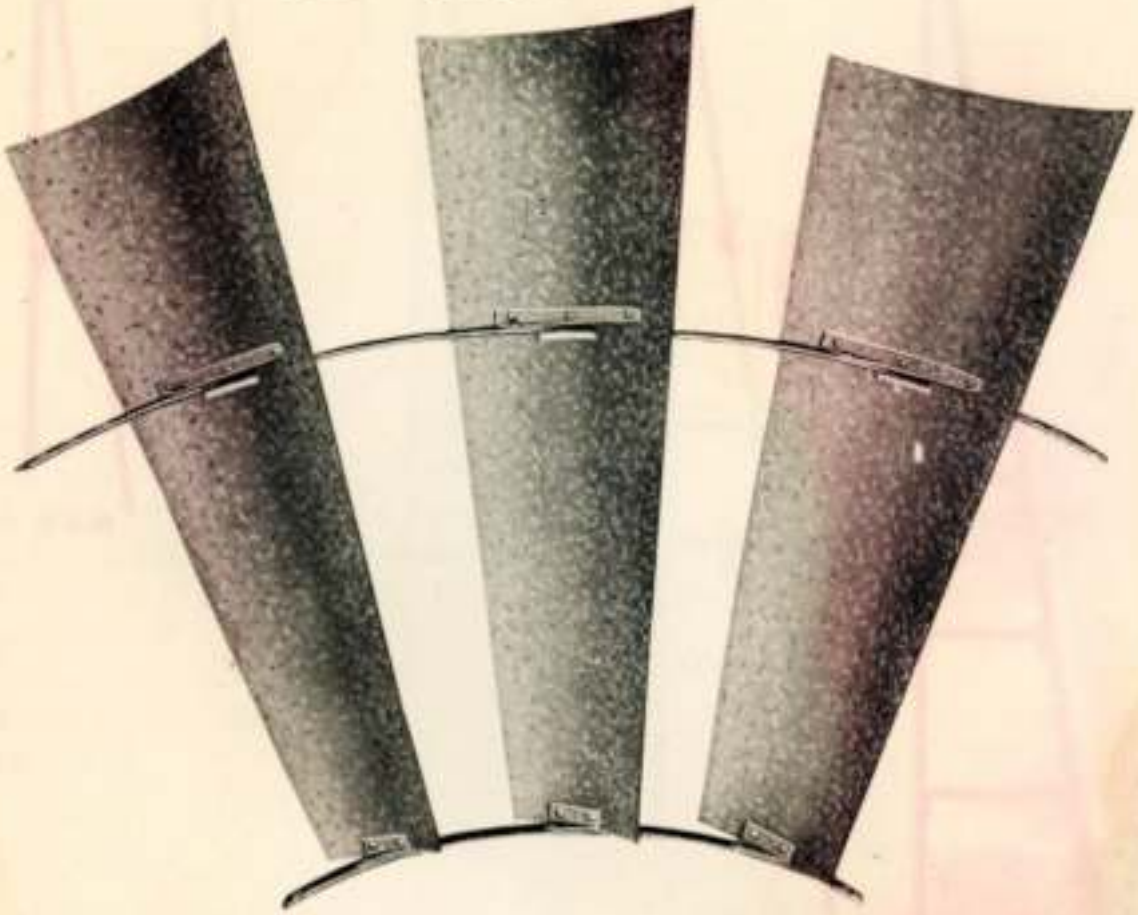
The combination bed plate shown below makes all U. S. mills fit either three or four-post U. S. steel or four-post wood towers. When you order U. S. mills, you need not specify what style towers they are to be erected upon, for without sending back to the factory for any piece or part, they fit any style tower. It means much to a dealer.



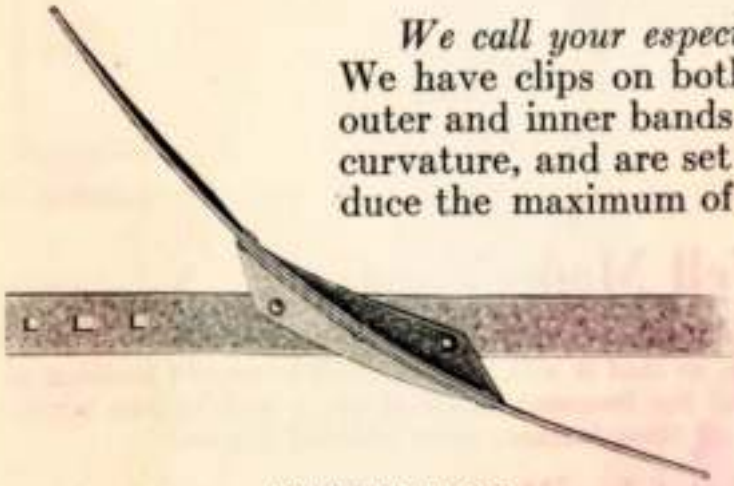
lloul
i steel

COMBINATION BED PLATE

The "Model B" Wheel

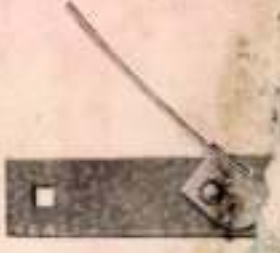


We call your especial attention to our wheel. We have clips on both sides of each sail at both outer and inner bands. The sails have the right curvature, and are set at the proper angle to produce the maximum of strength and power. T bands are ext and have thre each inters instead of two. easy to assem if you wi



OUTSIDE BAND

nuts loose as you go along until you have them all in place, then go back and tighten them, it will be as tight and true as a bicycle wheel, and the do ble nuts will keep it that way.



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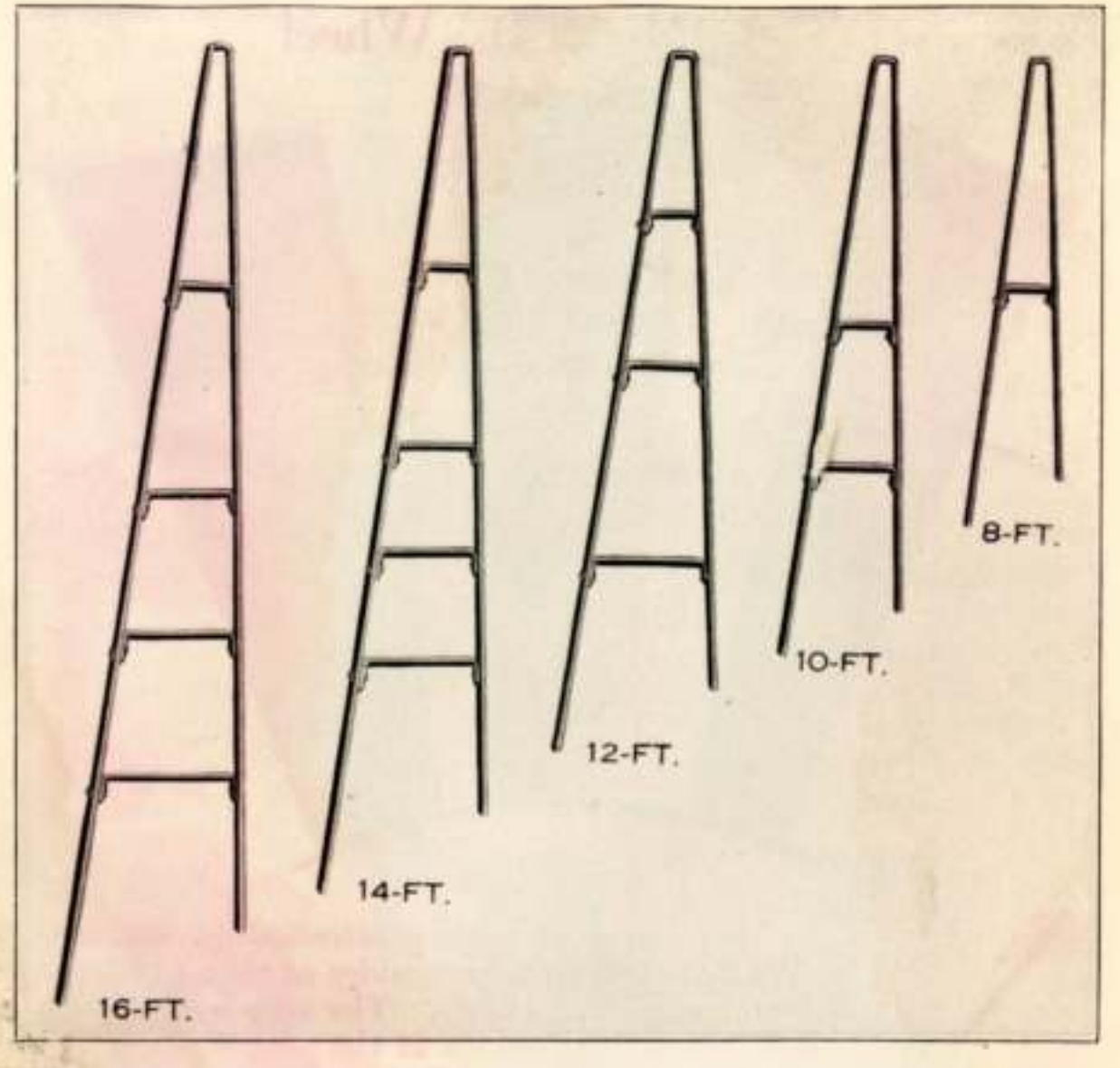


THE ARMS ARE THOROUGHLY BRACED, AS THE ILLUSTRATION SHOWS

A Well Made Vane

...*the perfect regulation* of the windmill it is essential that the vane be of right ...ns, strong and well made, so that it will keep the mill in proper position at ... able to withstand the frequent shock of gusty and violent winds. ...d in embodying all these features in an unusual degree.

...ert the cot...lel B" Windmills Are Perfectly Self-Governing ...f it is done.

...*erned* windmill will never exceed the speed limit no matter how ...v blow... Moreover, it will not stand idle, but will pump water steadily ... highest winds. It need never be pulled out of gear at the approach ...arantee it to stand any storm that does not wreck farm and ranch ... s in gear or out of gear. Perfect regulation is accomplished in ... mills by the proper setting of the main shaft and vane and by ... the vane hinge.

ASSEMBLED MOTOR 16′ "MODEL B"

The 14′ and 16′ sizes are different from the sma .er mi
the spider is in two pieces and the vane hinge brace is
main casting near the spider instead of to the shield .

U. S. "Model B" Mills are Made in the Following Sizes:

8-ft. mill, back geared 3⅓ to 1, 6, 7 and 8-in. stroke; has 5 arms, 5 sections and 15 fans, shipping weight..... 435 lbs.

10-ft. mill, back geared 3⅓ to 1, 7½, 8½ and 9½-in. stroke; has 6 arms, 6 sections and 18 fans, shipping weight..... 630 lbs.

12-ft. mill, back geared 3⅓ to 1, 9, 10 and 12-in. stroke; has 7 arms, 7 sections and 21 fans, shipping weight.. 1,000 lbs.

14-ft. mill, back geared 3 to 1, 11, 12 and 13½-in. stroke; has 8 arms, 8 sections and 24 fans, shipping weight.. 1,485 lbs.

16-ft. mill, back geared 3 to 1, 12, 14 and 16-in. stroke; has 8 arms, 8 sections and 24 fans, shipping weight.. 2,030 lbs.

Table Showing Diameter of Cylinder to Use in Wells of Various Depths

Depths Well.....	10′	20′	30′	40′	50′	75′	100′	125′
8′ mill.....	6″	5″	4″	3¼″	3″	2¾″	2½″	2″
10′ mill.....	8″	6″	5″	4½″	4″	3½″	3″	2¾″
12′ mill.....	8″	6″	6″	5½″	5″	4½″	3½″	3¼″
″ mill.....	2– 8″	8″	8″	6″	6″	5½″	4½″	4″
″ mill.....	2–10″	2–8″	8″	8″	6″	6″	5″	5″

pths Well.....	150′	175′	200′	225′	250′	275′	300′	350′	400′
″ mill.....	1¾″								
.....	2½″	2¼″	2″	2″					
.....	3″	2¾″	2¾″	2½″	2½″	2¼″	2″		
.....	3½″	3½″	3¼″	3″	2¾″	2¾″	2½″	2¼″	2″
.....	4½″	4″	4″	3½″	3½″	3¼″	3″	3″	2¾″

is very conservative.

ded to show what windmills will do under favorable

to show what windmills will do under average

S. S1 Repair List Pages 62 to 67

Shipping List 8′, 10′ and 12′ "Model B" Mills

1 Vane sheet
1 Crate of fans
1 Central iron work
1 Box of fixtures
1 Bundle vane rail and braces
1 Wood rod connection
1 Bundle of steel arms

14′ and 16′ "Model B" Mills

1 Vane sheet
1 Bundle of vane rail and braces
2 Crates of fans
1 Box of fixtures
1 Central iron work
1 Bundle of wood rod

Shipping List 20′ Steel Tower

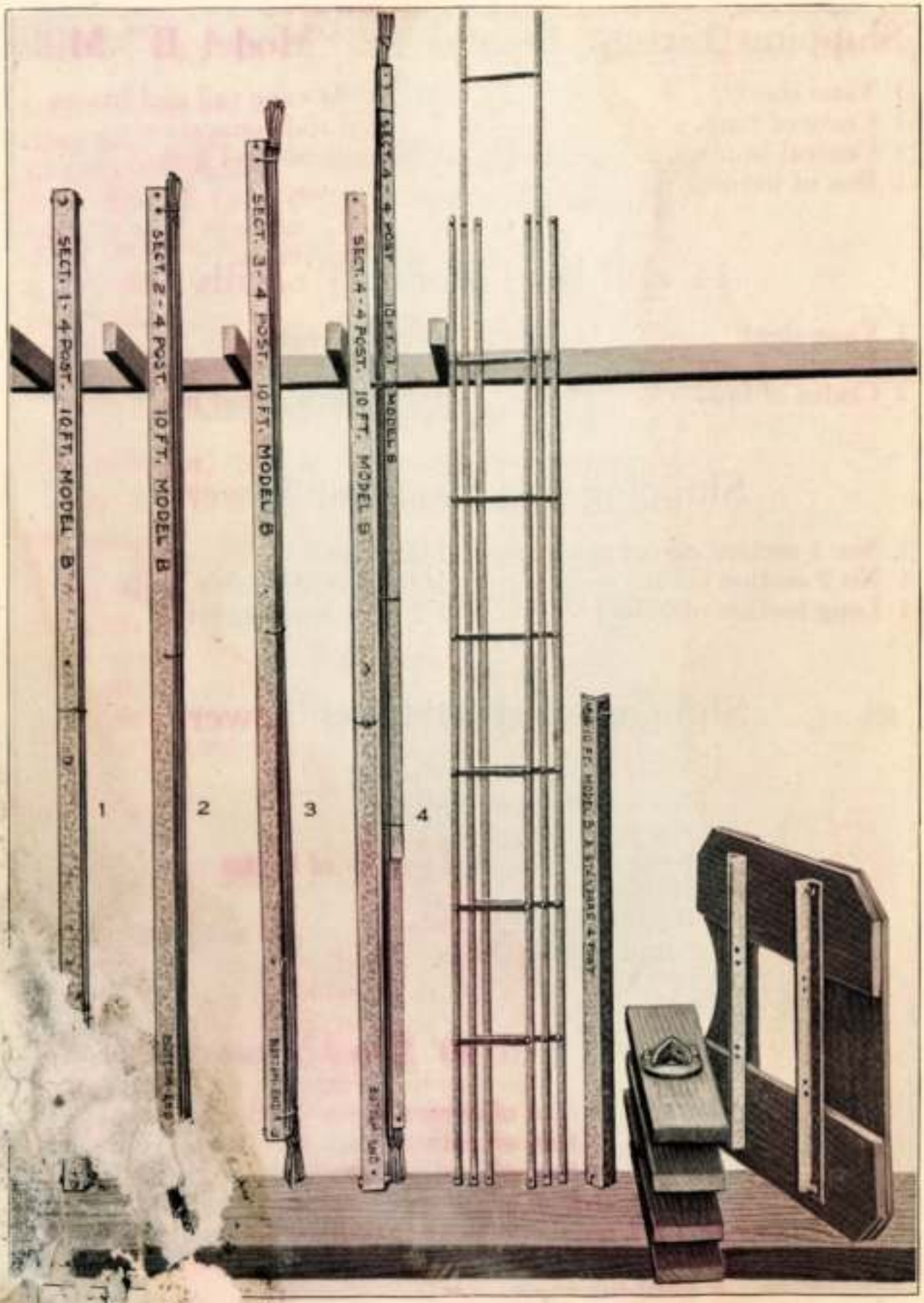
1 No. 1 section corner posts
1 No 2 section corner posts
1 Long section of ladder
1 Platform
1 Bundle of anchor posts
1 Set of anchor plates

Shipping List 30′ Steel Tower

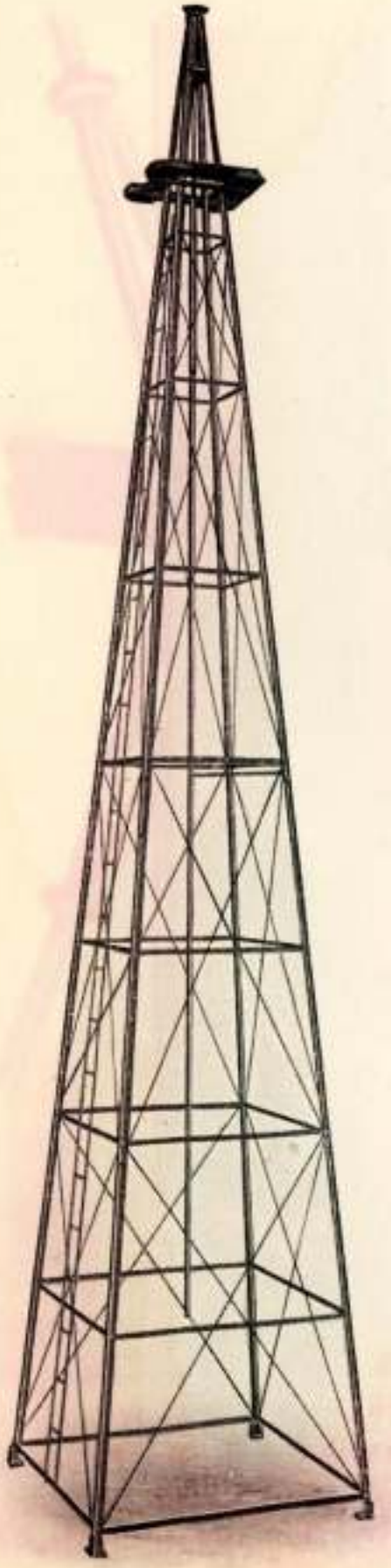
1 No. 1 section corner posts
1 No. 2 section corner posts
1 No. 3 section corner posts
1 Long and one short section of ladder
1 Platform
1 Bundle of anchor posts
1 Set of anchor plates

Shipping List 40′ Steel Tower

1 No. 1 section of corner posts
1 No. 2 section of corner posts
1 No. 3 section of corner posts
1 No. 4 section of corner posts
1 No. 4 bundle girts and brace rods
2 Short and 1 long section of ladder
1 Platform
1 Bundle of anchor posts
1 Set of anchor plates



S. ST Repa EL TOWER PACKED FOR SHIPMENT



U. S. STEEL TOWER

U. S. Steel Towers

U. S. steel towers are the strongest and simplest towers made. The holes are punched with absolute accuracy by special machinery, and all brace rods are made in special automatic machinery, which insures accuracy in every one. They go together easier and in less time than any others, and are better towers when you get them together.

To Assemble

You put U. S. steel towers together just as you put windmill wheels together. Leave all nuts loose until all are in position, then tighten them all, and your tower is done; every brace exactly the right tension, and the tower perfectly true and straight. The swinging pump rod guide prevents chafing and noise.

Packed for Shipment

The bolts, nuts, cross girts and braces where the length will permit, are packed inside the corner posts. We illustrate a 40′ tower as it is packed for shipment. Keep your tower stock as the illustration shows. Number one sections, in the number one stack, number two in the number two stack, and so on. It saves space, and you can tell at a glance how many towers of each size you have in stock. Do not pile them on the floor, and then get run in the face every time you get a tower.

Tower Extensions

Both three and four-post towers are made in multiples of ten feet with cross girts five feet apart, and equipped with side ladders. A customer having purchased a tower which proves to be not high enough can order ten or twenty feet more, as the case may be, and the cost of such extension will be the difference between the price of the tower as it was and the price of the tower to which it has been changed.

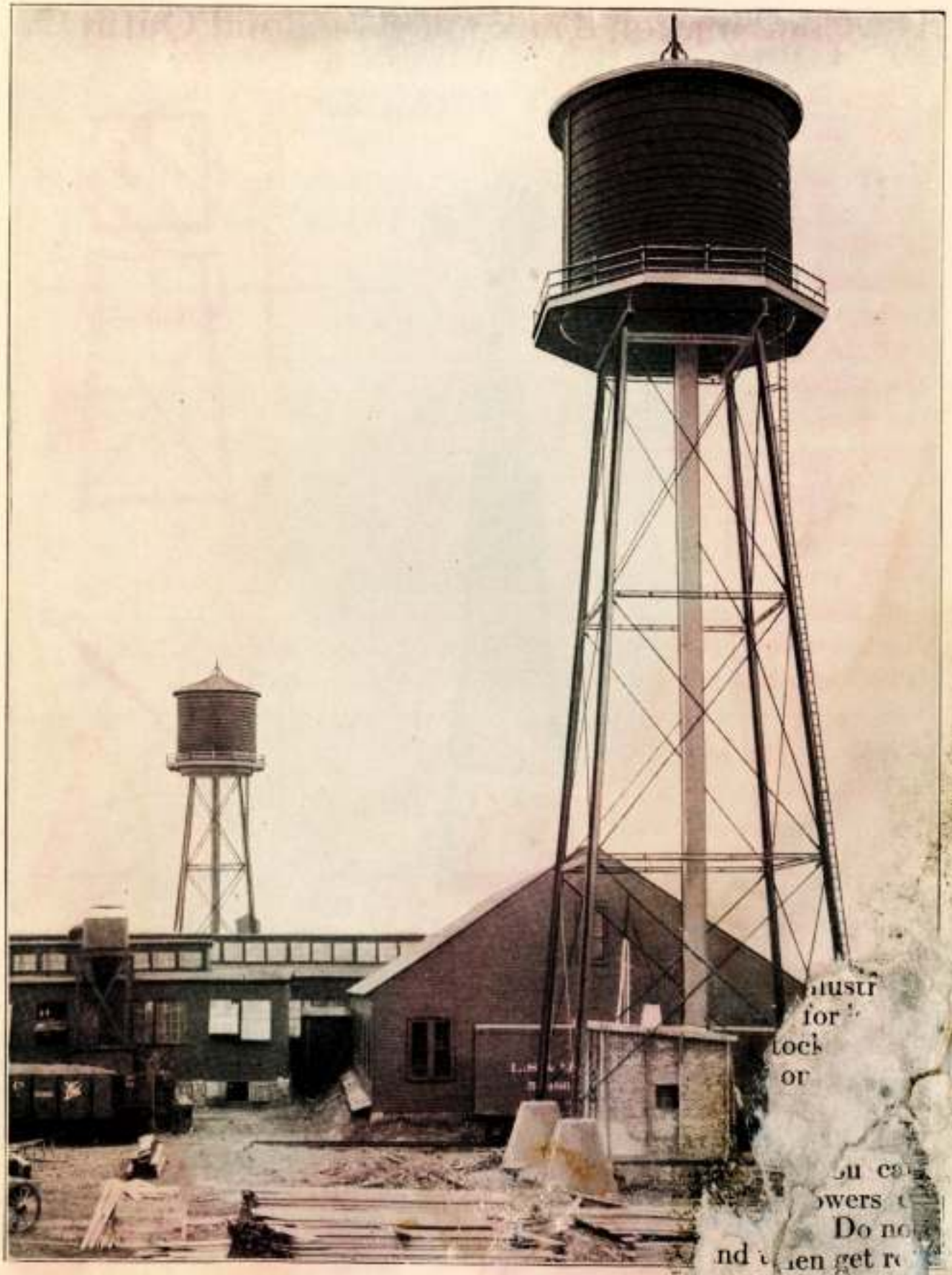
If you have a 50′ tower in stock, you can sell a 20′, 30′ or 40′ tower from it. Then order the size tower you sold, and your 50′ tower is complete again. Each ten-foot section is complete in itself. No box of bolts and fixtures to sort out.

The spread of four-post towers at anchor posts is one fifth of their height, while three-post towers spread one fourth of their height.

PLATE

Mills They Will Fit

Four-post towers for 8′ "Model B" mill will also fit 6′ "Model B" and 8½′ "Model E." You cannot put 10′ mills on this tower. The four-post towers for 10′, 12′ and 14′ mills fit Models "B," "D," and "E." For 16′ and larger, you must specify which mill the tower is to carry. The 6′, 8′ and 10′ "Model B," 8½′ and 10′ "Model E" and 10′ "Model D" take the same three-post tower.



TWO OF OUR TANKS ERECTED FOR
FIRMS IN ROME, NEW YO

Combination Tank and Windmill Outfit

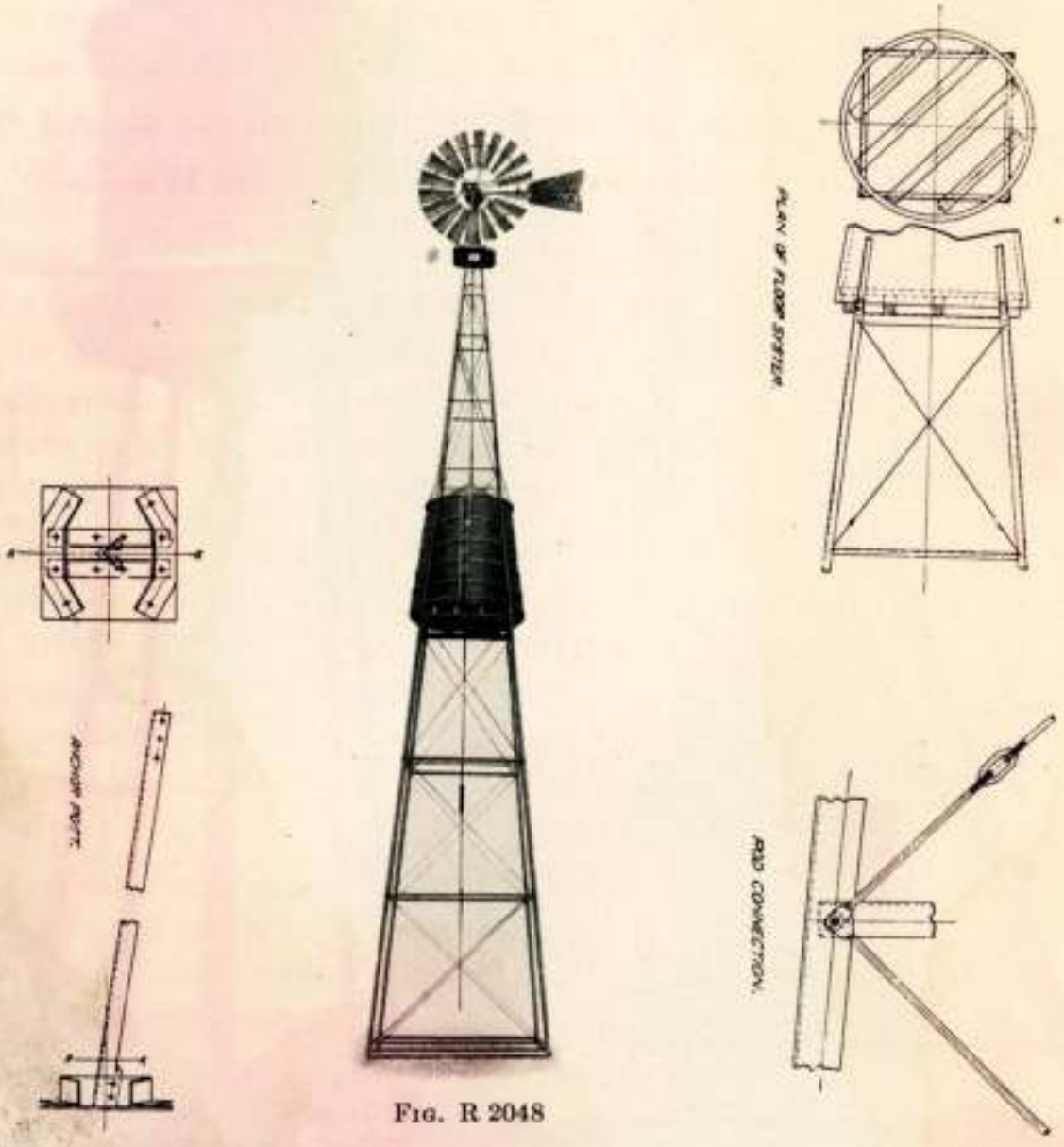
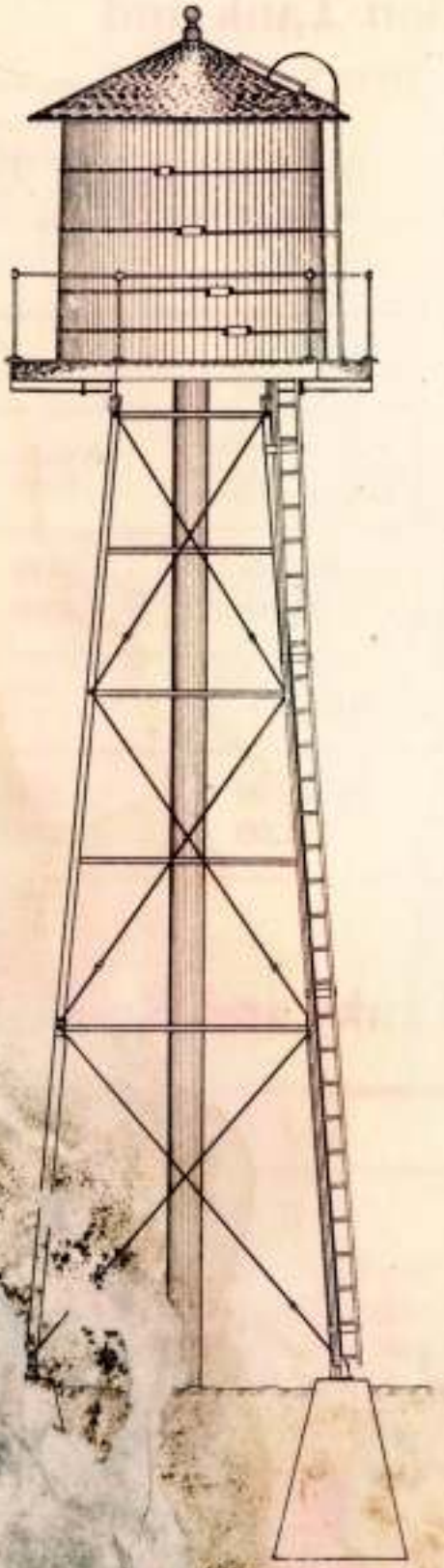


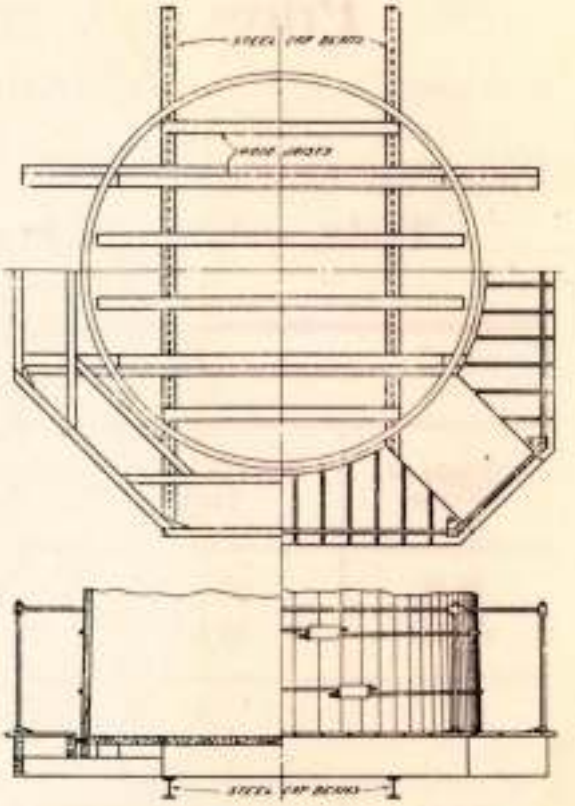
Fig. R 2048

above sketch of our combination towers shows the detail of , except the size of the material used, which varies accord- eight of tower and size of tank. They are mechanically of ample strength to carry the load for which they are

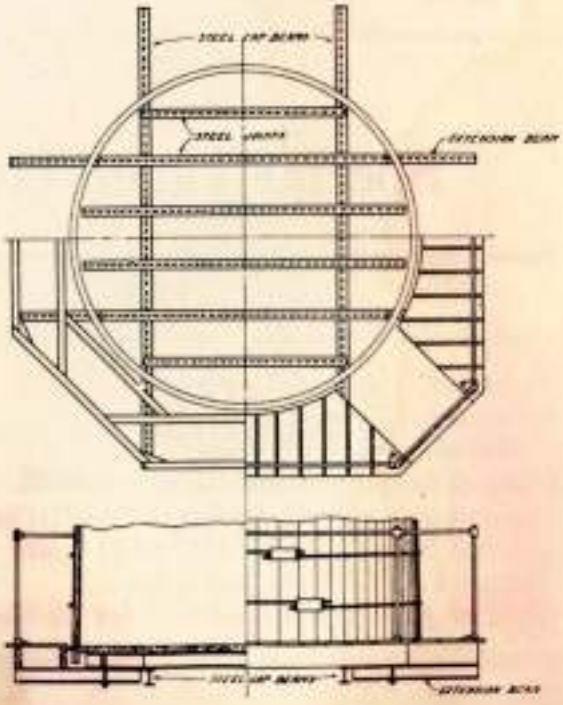
mportant feature in an outfit of this kind is the anchorage. The anchor plate, which consists of a heavy steel plate heavy steel angles, all galvanized and bolted in

that the brace rods are furnished with drop forged or tightening.





WOOD FLOOR SYSTEM.



STEEL FLOOR SYSTEM.

OR SMALL STORAGE TANKS FOR FARM, LAGE AND SUBURBAN USE

Table of Weights and Prices of Galvanized Towers for Small Tanks

Size of Tank	Height of Tower	Tower with Cap-Beam only (Ladder Included)		Addition for Steel Joists		Addition for Four Steel Extension Beams		Addition for Hand Rail	
		Weight	List	Weight	List	Weight	List	Weight	List
6x 6	10	438	$46.00	139	$12.00	89	$9.00	69	$10.00
	15	571	60.00						
	20	703	75.00						
	25	918	95.00						
	30	1064	110.00						
	35								
	40	1439	148.00						
	45								
	50	1948	193.00						
	60	2475	242.00						
7x 7	10	501	52.00	249	20.00	96	10.00	72	10.00
	15	659	68.00						
	20	816	85.00						
	25	1059	107.00						
	30	1243	127.00						
	35								
	40	1685	170.00						
	45								
	50	2267	210.00						
	60	2856	275.00						
8x 8	10	633	61.00	285	23.00	102	10.00	75	10.00
	15	910	89.00						
	20	1014	99.00						
	25	1403	136.00						
	30	1511	147.00						
	35								
	40	1989	188.00						
	45								
	50	2628	248.00						
	60	3244	306.00						
10x10	10	868	83.00	546	44.00	105	11.0		
	15	999	97.00						
	20	1358	130.00						
	25	1692	157.00						
	30	1902	176.00						
	35								
	40	2716	255.00						
	45								
	50	3593	324.00						
	60	4643	423.00						

Prices include anchor rods and plates for pier.
Write for Discount Sheet.

Round Tanks

The prices on round tanks include nothing but the staves, bottom, dowel-pins and iron hoops. We set up every tank and mark each piece and every hoop. Scale drawings showing foundation and support will be furnished all purchasers free of charge.

Fig. 1225. ROUND STOCK TANK

Fig. 1322. TAPER TOWER TANK

ame as 2-inch storage tanks
bottom.

Price List and Table of Small Storage Tanks

Regular Sizes from 1½ and 2-Inch Lumber

The same care is used in making these tanks and in the selection of the lumber as in those made from 3-inch lumber. The same specifications will apply except as to the thickness of lumber.

LENGTH OF STAVE	Diameter of Bottom in Feet	No. Hoops	Capacity in Barrels	Capacity in Gallons	Approximate Weight 2-in. Pine, or 1½-in. Cypress	List Price 2-in. Pine or 1½ in. Cypress	Approximate Weight 2-in. Cypress	List Price 2-in. Cypress
2 feet	4	2	4	117	180	$ 12.50	220	$ 15.00
2½ feet	4	2	5	158	210	14.00	250	16.80
4 feet	4	4	8	268	325	20.40	390	25.50
5 feet	4	4	11	342	385	23.30	460	29.50
6 feet	4	5	13	410	460	27.00	550	34.00
2 feet	5	2	6	195	240	16.20	290	19.70
2½ feet	5	2	8	255	280	18.00	340	22.00
4 feet	5	4	14	443	425	25.60	510	32.40
5 feet	5	4	18	562	500	29.20	600	37.30
6 feet	5	5	22	675	590	34.00	700	43.20
7 feet	5	6	25	784	690	39.00	830	49.50
2 feet	6	2	9	292	290	20.00	350	24.50
2½ feet	6	2	12	382	330	22.00	400	27.30
3 feet	6	3	15	477	400	26.00	480	32.80
4 feet	6	4	21	659	480	31.20	575	39.70
5 feet	6	4	27	838	550	35.50	665	45.50
6 feet	6	5	32	1017	640	41.00	768	52.50
7 feet	6	6	38	1190	740	47.00	880	60.00
8 feet	6	7	43	1368	850	52.00	1020	67.00
10 feet	6	8	54	1710	960	62.50	1150	80.00
2 feet	7	2	13	408	360	25.00	432	30.60
2½ feet	7	2	17	534	410	27.50	492	34.00
6 feet	7	5	45	1413	900	49.20	1080	63.20
7 feet	7	6	53	1660	1025	55.50	1230	71.30
8 feet	7	7	60	1886	1150	62.00	1380	79.30
10 feet	7	8	74	2335	1300	73.50	1565	94.50
2 feet	8	2	17	543	450	29.50	540	36.50
2½ feet	8	2	23	710	510	32.50	612	40.30
3 feet	8	3	28	884	590	37.00	708	47.30
4 feet	8	4	39	1218	740	44.50	888	57.[illegible]
6 feet	8	5	60	1878	1000	57.50	1200	
7 feet	8	6	70	2207	1170	65.00	1404	
8 feet	8	7	80	2535	1345	72.00	1614	
10 feet	8	8	101	3180	1520	86.00	1824	
12 feet	8	9	121	3816	1700	100.00	2040	
2 feet	9	2	22	696	645	35.00	774	
2½ feet	9	2	29	904	710	38.00	854	
6 feet	9	5	76	2390	1250	66.00	150[illegible]	
8 feet	9	7	102	3210	1550	82.50	1[illegible]	
10 feet	9	8	128	4020	1830	98.00		
12 feet	9	9	153	4820	2125	114.00		
2 feet	10	2	28	870	750	41.00		
2½ feet	10	2	36	1138	825	44.50		
8 feet	10	7	129	4060	1865	97.00		
10 feet	10	8	162	5102	2150	114		
12 feet	10	9	181	5700	2[illegible]5			
2 feet	12	2	40	1270				
2½ feet	12	3	53	1661				
8 feet	12	7	189	5944				
10 feet	12	8	237	747[illegible]				
12 feet	12	9	286					
14 feet	12	12	335					

Net price

Why not buy your windmills where you can buy both wood and steel mills of the kind you want in all sizes and ship them in the same car?

THINK OF IT

Our carload prices, terms and freight rates make carload buying easy. We ship pumps, cylinders, pipe, fittings, tanks, wood rod, etc., in the car with your mills.

WHY NOT?

R. R. DONNELLEY & SONS CO., CHICAGO

Assunto: Re: Information about an old windmill?
De: Chris Winter <chrisw@bataviaparks.org>
Data: 08/06/2018 18:14
Para: Alexandre Badalo <alexandre9099@gmail.com>
CC: Emanuel <emanuel@museu-sbras.com>, hbarbaramaia@museu-sbras.com

Alexandre,

It seems that your windmill is a U.S. Model B. This model was produced circa 1912-1920s. The Model E windmill is made of all wood in a very elaborate design. I have attached some information on the Model B, along with a photo of the same windmill that is on display at the U.S.W.E. manufacturing plant here in Batavia.

I see from your email address that you are in Portugal. It's very exciting that one of our Batavia windmills is displayed at a museum in Portugal! Could I have your permission to post your photo on our social media (Facebook)? I think our followers would be very interested in this.

Thank you,

Chris Winter
Curator, Batavia Depot Museum
155 Houston St. Batavia, IL 60510
Batavia, IL 60510
P: 630.406.5274
F: 630.593.5202
www.bataviaparks.org

BATAVIA DEPOT MUSEUM
Batavia Park District

On Fri, Jun 8, 2018 at 9:02 AM, Alexandre Badalo <alexandre9099@gmail.com> wrote:

> Yes, it is from U.S. Wind Engine & Pump Company,
>
> Photos in attachment
>
> On 08-06-2018 14:47, Chris Winter wrote: