

DEMPSTER STEEL WINDMILL TOWERS

DIAGRAM OF TOWER.

FOR 8 and 10 FOOT WINDMILLS
 Showing Dimensions and Sizes of Material.

Towers for other sizes of windmills are made on practically the same general lines of construction, except in weight and sizes of material.

Sizes and Weights of Four-Post Steel Towers.

Made with 2-inch angle corner posts and steel girts every five feet for 6, 8 and 10 foot wood or steel mills.

	Weight
20 foot	385
25 foot	455
30 foot	550
40 foot	740
50 foot	1000
60 foot	1300

Made with 2½-inch angle corner posts and steel girts every five feet for 8 and 10 foot wood or steel mills.

	Weight
20 foot	435
30 foot	620
40 foot	830
50 foot	1075
60 foot	1375

Made with 3-inch angle corner posts and steel girts every five feet for 12 and 14 foot wood or steel mills.

	Weight
20 foot	530
30 foot	750
40 foot	1005
50 foot	1285
60 foot	1685

All towers are shipped complete with anchor posts and plates.

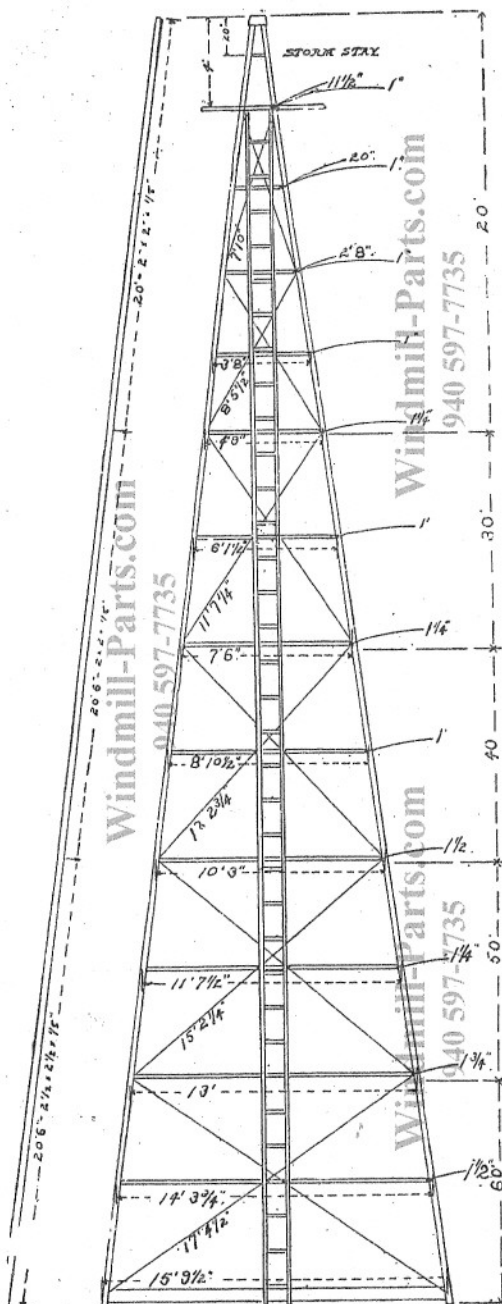


Fig. 1046

DEMPSTER STEEL WINDMILL TOWERS

RIGID CORNER POSTS.

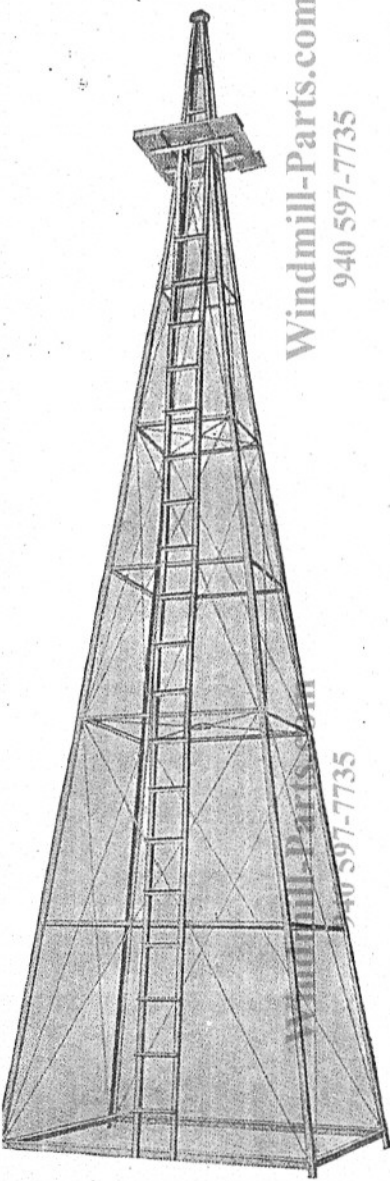
The corner posts are made of either 2"x2", 2 1/2"x2 1/2", or 3"x3" angle steel, depending on the height of the tower and the size of the mill for which it is to be used. They are cut to length and punched by a special process in

our own plant before they are galvanized, obviating any chance of the galvanizing becoming broken or peeling off.

From a mechanical standpoint, the "Sprung" Tower is from 15% to 20% stronger than the tower with straight corner posts. By using the "Sprung" construction we are able to come straight down to a point a little below the platform with the corner posts, thus giving us more room between the wheel and the tower. From the platform down to the anchor posts, the tower is sprung, giving a wider spread at the base of tower and a greater distance between the corner posts at the base of tower than it is possible to obtain with any other construction.

GIRTS ONLY FIVE FEET APART

We use only the best quality of galvanized angle steel, braced with twisted galvanized wire cable and heavy angle steel girts every five feet apart. Some manufacturers leave ten feet between the girts on some of their towers, but actual test proven that a tower with girts 5 feet apart has double the strength and resisting power of one with girts ten feet apart.



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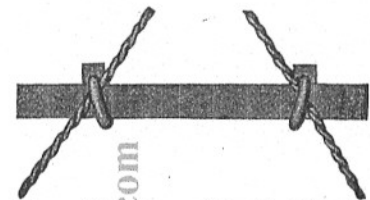
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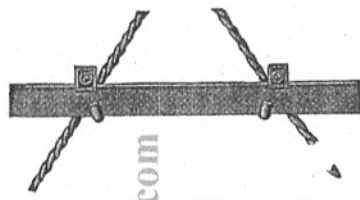
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Illustrations below show how braces are connected to corner post. Also to intermediate girts.

Every girt on **DEMPSTER** towers is made of steel, with the exception of the bottom girt, which is made of wood. At the first thought you may think that this should be steel, but consider this girt is at the bottom of the tower and that every time you go for water you step over this girt. It would be very natural that sometimes you would step on this girt. If it was made of steel you bend the girt down and it would then cease to be a brace for the tower,

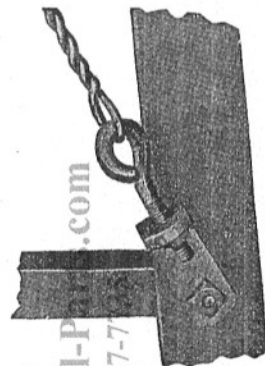


Brace Tightener (Inside View)



Brace Tightener (Outside View)

Fig. 1043



Chain and Eye Bolt
Fig. 1044.

It would immediately become a strain trying to pull the tower together at the bottom, loosening the brace wires and throwing the tower out of alignment, while with the wood it cannot bend, even under pressure, but will always remain a substantial and reliable brace for the towers.

The end of each brace is equipped with an eye bolt and nut, which passes through a chair or wrought iron clamp as shown in Fig. 1044, that is bolted to the corner post, making it possible to draw the brace wire as tight as desired. The brace wires are also clamped to the intermediate girt, as shown in Fig. 1043.

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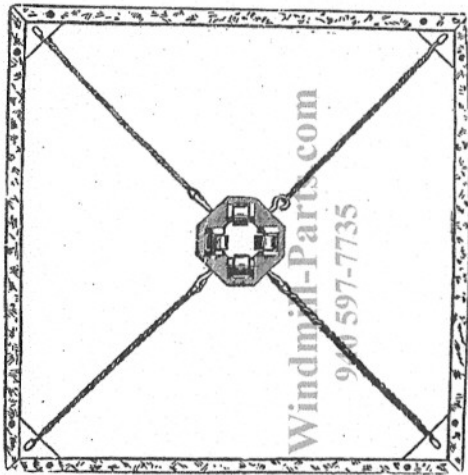
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ROLLER GUIDE FOR PUMP ROD.

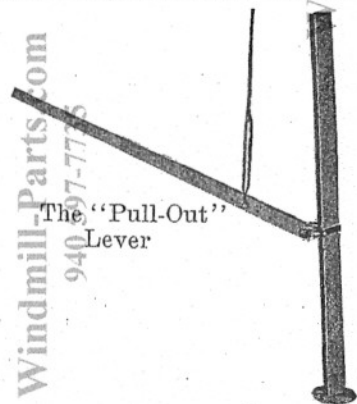
Illustration shows the Roller Pump Rod Guide, which is an important feature of every **DEMPSTER** Tower. It serves not only to keep the rod in perfect alignment, and to permit of its operation without friction, but the method of securing same to the triangular steel corner brace plate contributes in a remarkable degree to that rigid construction so vitally essential in a windmill tower.



The roller guide and wires fasten to the corner of the tower by means of the angle, and the wires running from the four corners brace the tower very materially. We place one of these roller guides every ten feet in our towers. The triangular corner plate in each corner is not bolted, but is riveted to the girt. This is done before the girt is tightened, and makes an exceptionally strong brace.

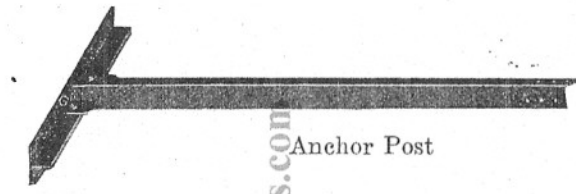
DEMPSTER "PULL-OUT" LEVER

is the device by which the wheel of the **DEMPSTER** Mill is thrown out of the wind when pumping is not required. This lever is a great improvement over the usual method. There is no windlass to wind or ratchet to wear out and



The "Pull-Out" Lever

slip—only a simple, self-locking lever to pull by, a casting which is attached to the corner post of the tower, forming a hinge for the lever, which automatically locks the mill out of gear. The pull-out wire is fastened to a simple lever. This arrangement is so simple that any child can operate it.



Anchor Post

A strong anchorage is very important for a windmill tower. A glance at the illustration shows a **DEMPSTER** Galvanized Steel Anchor Post that will not rot or rust and is so constructed that your tower will be safe in the strongest wind.

A bed of cobble stones or cement should be placed under the anchor plate to prevent tower from settling. Then fill the hole on top of plate with cement, gravel, crushed stone or earth and tamp it well down.

FOUR POST GALVANIZED STEEL TOWERS

Height	For 6, 8 and 10 foot Mills Corner Posts		For 12 and 14-ft. Mills Corner Posts
	2x2 inch	2 1/2 x 2 1/2 inch	3x3 inch
20 feet	385 lbs.	435 lbs.	530 lbs.
25 feet	455 lbs.	Not made	Not made
30 feet	550 lbs.	620 lbs.	750 lbs.
40 feet	740 lbs.	830 lbs.	1005 lbs.
50 feet	1000 lbs.	1075 lbs.	1285 lbs.
60 feet	1300 lbs.	1375 lbs.	1685 lbs.

WINDMILL AND TOWER GUARANTEE

... rantee **DEMPSTER** windmills and towers to be of the best material ... be constructed in the best and most workmanlike manner. We guarantee them against breakage from defective material or faulty workmanship ... year from date of purchase. If any part does break from these causes ... replace it free of charge f. o. b. factory.

2 ar... guarantee covers every windmill and tower we manufacture. It ... the essential points of merit which you demand of a windmill and tower, ... of any article you purchase. A guarantee of this kind backed by ... the standing of ours, is full and complete protection for you.

