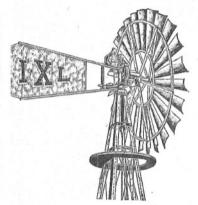
# The "IXL" Steel Windmill



# IS THE MOST COMPLETE WINDMILL ON EARTH.

Made for Durability and not to satisfy the craze for "something cheap."

The Wheelis made with Double Arms so that it is impossible to spring it out of shape.

The Rudder is Double Braced with Angle

The Main Casting is made adjustable so as to take up any wear that may ever come on the cog wheels. This feature alone makes it far superior to all other windmills.

Both Wheeland Rudder are made entirely of steel-wo awkward castings to break or retard the motion of the Wheel.

It is made with three different lengths of stroke, making it especially adapted to either

inder or tubular wells. It will not flop out and into gear in an unsteady wind, being controlled by a conntly increasing tension of the governing spring.

It is Galvanized after completion giving a remarkably neat and durable finish.

#### SELF-GOVERNING.

There is a remarkable beauty about the *qoverning principle* which is characteristic of s Mill alone, it being constructed so that the wheel moves out of the wind in governing. 1 not the rudder as in most other mills. There is a proper amount of speed for the eel, which it has in ordinary winds with the wheel directly facing the wind, but by eel ought to bear the tendency is to fold the wheel partially toward the rudder, and this position it continues to work at its regular speed; then, as soon as the force of wind abates, it resumes its normal position with the wheel squarely facing the wind. the wind becomes very severe the wheel is folded around by the side of the rudder, is presenting the edge of the wheel to the wind, and it remains still until the wind rm dies away when it returns to its original position and resumes its work. Thus the ll governs itself perfectly.

PLAINVILLE, N. Y.

by & Bigelow Wind Mill Co., Kalamazoo, Mich.

Dear Sirs—Enclosed find draft for the three last Windmills shipped me. One of these Mills, as I told you in former letter, goes into an entirely new neighborhood. The party to whom I sold it bought a Mill and tilting ver; but it broke down and he sent for me, knowing that I was handling Windmills. After a long argument Id him the "I X L" Windmill, warranting it to be as good as larry Mill made. Yesterday when we had the admill completed quite a number of neighbors gathered to see the new mill—the one which I had warranted as good as the \_\_\_\_\_, or the \_\_\_\_\_, or the \_\_\_\_\_, which are used in that neighborhood.

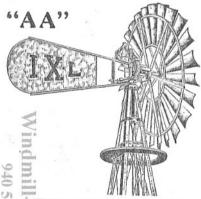
When I showed them the rubber cushion on brake and vane, they said that was a first-rate thing; and when cound them the double turn-table and available to them how the wheel came into the wind without the rud-

owed them the double turn-table and explained to them how the wheel came into the wind without the rud-turning at all, they were quite surprised; and when I showed them the adjustable parts of the main casting, how any wear that might ever come on the cog wheels can be taken up, they said that it was the best arrangeat they ever saw on a Windmill.

It was quite amusing to see their surprise when I showed them the points of superiority in our Mill, as up to that e each one had supposed that he had the best Mill on the market. Respectfully,

P. S. BRATT.

## Business Established 1873



# PRICE LIST Steel Windmills

We furnish these Windmills with cap for four post wood tower, cap for a solid mast, or cap for steel tower. If steel tower is ordered we send the Mill with cap to fit same. If no tower is ordered we send the Mill with Cap to attach to four post wood tower unless cap for solid mast is specified in order.

Price of windmill includes all bolts for putting it together and bolting it to Tower, and also the actuating rod which goes down to attach to

In each box of bolts will be found plain instructions for putting Mill and Tower toegther.

100			(2)		
	Weight, Lbs.	Galvanized	Steel Wind	dmills =	Price.
2	390 500 810	No. 0, 6 ft. Windmill, fited No. 1, 8 ft. Windmill, fited No. 2, 9 ft. Windmill, fited No. 3, 10 ft. Windmill, fited No. 4, 12 ft. Windmill, fitted No. 5, 14 ft. Windmill, fitted	with cap for Wood with cap for Wood with cap for Wood with cap for Wood	Tower, (back geared). Tower, (back geared). Tower, (back geared). Tower, (back geared).	\$25 00 30 00 34 00 40 00

### Direct Motion Mills

The Windmills quoted above are back geared. We also make DIRECT MOTION Windmills which cost a little less, as stated below:

The 8 ft. direct motion is \$1.00 less than the 8 ft. back geared. The 9 ft. is 1.00 less than the 9 ft. The 10 ft. is 2.00 less than the 10 ft. The 12 ft. is 2.00 less than the 12 ft. The 14 ft. Is 3.00 less than the 14 ft. "

If the direct motion Mill is wanted, it should be so stated in the order, otherwise the back geared Mill will be shipped.

It should be borne in mind that the back geared Mills have more power than the direct motion Mills of the same size.

The 12 ft. and 14 ft. back geared Mills named above are made very strong and heavy and have great power.

### Galvanizing

The galvanizing of both Mill and Tower is done after all the cutting, punching and riveting is completed, thus covering all raw edges and thoroughly protecting from the

### Warranty

All our Mills and Towers are warranted-(when erected and anchored according to our printed instructions) against winds which do not damage other property in same vicibity. This warranty extends for one year, and any piece of the Mill or Tower which proves defective within said year will be furnished without charge on cars at Kalamazoo.

The Phelps & Bigelow Wind Mill Co., Kalamazoo, Mich.