



ELGIN
WINDMILL CO.
GUARANTEED WINDMILLS SINCE 1882
ELGIN, ILLINOIS
MINNEAPOLIS · KANSAS CITY · DALLAS · HOUSTON

Elgin Windmill Company

Established 1882

Originators of Self-Oiling Windmills



Manufacturers of the world famous

WONDER and HUMMER

oil-once-a-year windmills

and

ELGIN, GIANT and GIBRALTAR

galvanized steel towers



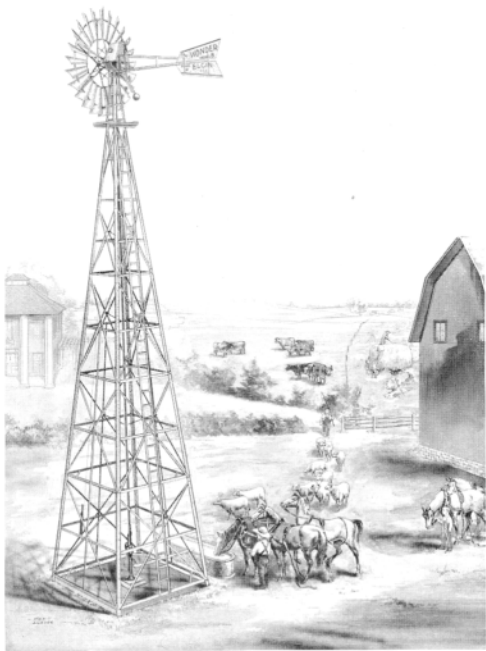
*The Only Windmill Sold Under a
3-Year Guarantee Against Defects*

Catalogue No. 29

General Offices and Factory :: :: Elgin, Illinois, U. S. A.

Transfer Stocks: Minneapolis, Kansas City, Dallas, Houston

Distributors and Better Dealers Everywhere



Real Farm Relief — It's a Wonder

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Terms and Conditions of Sale and Shipment

Very Important---Read This Page

Our products are built to a high standard of quality. This permits our giving a written guarantee which we believe is longer and stronger than the written guarantee given with any other windmill. In order to maintain this standard, we sell through dealers and protect their territories. We do not sell to mail order houses. We do not sell direct to users except in territories where we have no active agents.

This catalogue supersedes previous issues, as do parts prices here given. Discount quotations and price lists are issued as required by the trade and are subject to immediate acceptance and change without notice. All orders and contracts by salesmen are subject to confirmation. Orders which are not handled through jobbers should be sent to general offices at Elgin, Ill. Orders from parties unknown or without commercial rating will be shipped C. O. D. until credit is established through satisfactory references.

Transfer stocks of mills and towers in sizes generally used are maintained at convenient points. All shipments are made from stock nearest purchaser unless otherwise ordered. Company reserves right to ship from other points when necessary, in which event freight allowance will be made. Repair parts are shipped only from the factory to prevent mistakes.

Wonder mills with plain bearings are shipped unless roller bearings are specified in order. Hummer mills with steel wheel always are shipped unless wood wheel is specified. Four post tower tops always are shipped with mills unless three post tops are specified. When ordering mills without towers always state whether for steel or wood towers. Extra long bolts for attachment to wood towers are supplied without charge. The steel tower top is always included in the height of the tower but for convenience in erecting is always shipped with the mill. Tower tops for using our towers with mills of other make are furnished with tower order at small additional charge.

Original guarantee, signed and sealed by the company, as shown on adjoining page, will be gladly furnished any purchaser within ten days from date of erection. Request must give names and dates necessary in filling out guarantee. We do not insure our mills against tornadoes and storms that injure buildings or other permanent structures, although they have stood firmly against cyclones in many states.



Three Year Guarantee Certificate

The Elgin Windmill Company, a corporation doing business at Elgin, Illinois, hereby certifies that the windmill of its manufacture erected for

of _____ on the _____ day of _____ 19____ is fully guaranteed and if properly erected and oiled will run perfectly one year without further attention; and agrees that if any parts break or wear out because of defective material or workmanship, or should any part cut out for want of oil, such parts will be furnished free of charge f.o.b. cars at Elgin, Illinois.

The conditions of this guarantee are such that: The owner is required to look his mill over carefully at the end of each year after erection and tighten all loose bolts or rivets, replenish the oil, and replace any defective or broken parts.

If the owner fails to properly care for this mill, this contract then becomes null and void. But if the above requirements are complied with, it will remain in full force for three years.

ELGIN WINDMILL COMPANY

Corporate
Seal

(Signed)

Secretary

Tested at Hurricane Speed Before Shipment from Elgin

Experienced machinists test every assembled mill head, attaching the main shaft at the outer hub or nosepiece to the electric driving power of the factory. Brakes are removed and the power applied at the same point that would receive it in a driving storm. The mill head is then raced at hurricane speed, after which all working parts are examined. Every part must fit perfectly and run smoothly before shipment. In this way constant improvements have been made during many years in order to produce the perfect Wonder.



Assembling Room in the Home of Wonder Windmills

NO WOOD USED

Several years ago wood pitmans and wood blocks used in guiding them were thrown out. It was found that even the toughest wood, when constantly plunging into a bath of oil, could not stand the strain. So the new Model B has no wood beneath its

hood. In place of the guides is a semi-steel walking beam with the arms chambered and packed with cup grease for extra lubrication. In place of the wood pitman is one of electric cast steel (unbreakable) with the wrist pin cast into it so it cannot work loose and does not need a bolt. The two gears and two pinions also are semi-steel. The bearings are heavy vulcanized fibre, or the well known Hyatt Roller, as desired. In Wonder-Power mill, Timken roller bearings are used.

No Extras to Buy

First Cost Includes:

WITH MILL—Tower Top — All Necessary Pump Rod — Year Supply
Zero-Test Oil — Three Year Parts Guarantee

WITH TOWER—Anchors — Anchor Posts — Guide Rods and Platform

Real Reasons for Tower Top Attached to All Elgin Mills

Factory Assembled Prevents Mistakes



Ready for Shipment
(One post is cut away to show turntable, stop casting and shifting angle)

Greater Strength—This mill is more firmly supported than mills which rest on a cap on top of tower. Note that here the entire weight is shifted down into the tower top where it rests upon a ball-bearing turntable. This lessens the twisting strain on the tower and prevents the mill head from blowing off.

Prevents Friction—If the turntable were placed on top of the tower it would be necessary to have a guide casting down in the tower top for the mill stem to rub against during severe storms. No such friction is possible in this design which permits free and easy movement—perfect governing in all winds.

Shifting Rod Outside—In this and all Elgin mills, shifting angle with pull-out wire attached is outside the tower top where it cannot become entangled and broken by pump rod or other working parts.

Prevents Mistakes—Complete assembly and testing of mill before shipment simplifies erection. The assistant or helper cannot make mistakes that later will prove costly. There is nothing to do but loosen the stop casting; lift out the mill head; fasten the tower top firmly down over any make of tower; and shift the head back into position again. Put on the six wheel sections and vane and the work is done. It's a Wonder!

Easily Attached—Tower top is furnished in 3-post or 4-post design for all wood or steel towers. Extra long bolts are furnished for wood tower attachment. Special tops drilled to specifications also are furnished. Top for 4-post steel tower is shipped unless otherwise ordered. When attachment is made to old steel towers of different spread, only a few minutes is necessary to find same spread on old tower. Then notch old tower corner with hack saw and open holes with half inch reamer for new top to bolt firmly into place. The 5-ft. top gives additional height.

Note—Dealers are furnished with special angle steel feet to attach tower top to show-room floor or platform for demonstration of complete mill in operation.

New Improved Elgin Wonder

Model B

Running in Bath of Oil

Double Geared — Double Powered
Self Governing



With Plain or Hyatt Roller Bearings
and Crimped Fans

Built in 6-8-10-12-14 Foot Sizes



Hyatt Roller
Bearing

PROOF OF PERFORMANCE SHOWN IN TEST OF TIME

Wherever windmills are used, from Cape Town to Puget Sound, there you will find the original Wonder running in its bath of oil and sturdily demonstrating superiority. Hear what the owners say:

"Running for 15 years without repair."

"Allowed to govern itself and never turned off in 3 years."

"Twenty-one farmers here bought windmills and eighteen chose Wonders."

Is it strange that thoughtful buyers refuse to consider recent imitations, several of which use old construction designs that were laid aside years ago in the constant refining that brought this improved and perfect Wonder Model B?

After 47 Years Development

Strongest Windwheel — Wide Spread Arms Three Stroke Adjustments

Lessons learned during 47 years of exclusive windmill manufacture make possible this presentation of the strongest of windmill wheels—strengthened in every point where other mills are weak—made possible through the cooperation of thousands of practical windmill erectors.

In the arms of a windwheel lies its strength. These zinc galvanized steel braces stand $12\frac{1}{2}$ inches apart on the main-shaft of the 8 ft. size. This is a wider spread and therefore far stronger than known in other mills of equal size. Extra cross braces hold them firm at points of strain. At the base they are bolted firmly into grooves of the hub and nosepiece castings on the shaft.

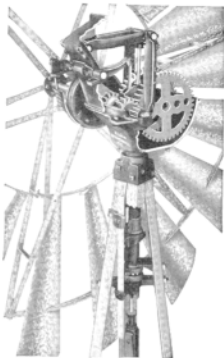
Eighteen blades or fans, forming six sections, furnish a wind surface that insures action and power in the lightest breeze. The curvature and position is the result of scientific design and many years testing. Here again double bracing and crimped fans in larger sizes make an unusually sturdy wheel. Two rims firmly fasten each fan to the widespread arms. Every bolt has a lock washer.

Tests by hundreds of practical erector dealers prove this windmill construction gives greatest possible power and speed. It is so evenly balanced that it turns easily in the lightest breezes. In a gale it automatically turns itself edgewise or out of gear, through the operation of its simple shifting device.

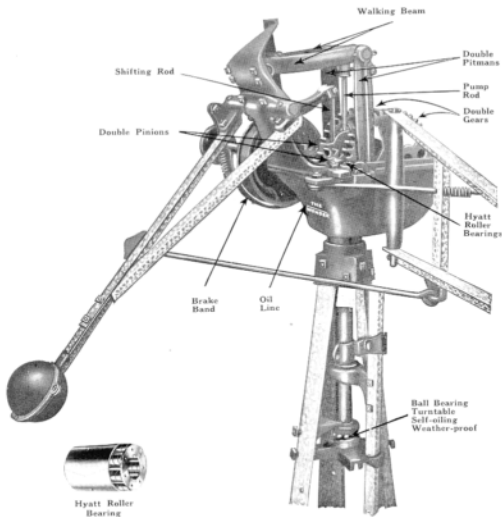
With casings cut away to show all working parts, it is easy to understand why this new and improved design of the most simple wind pumping machinery is all that its name implies—The Wonder.

Here can be seen the inside of the reservoir or bath of oil in which the large gears turn constantly, feeding the oil up to the pinions, the main shaft bearings, and to all working parts, assuring even and constant lubrication, lessening the wear and making it as near automatic and everlasting as human skill can design.

Here can be readily seen the three stroke adjustment which is unknown in most windmills of 8 foot size. This ends one of the difficulties of many farmers. This permits adjustment in just a few minutes to suit the need of each individual well or pump cylinder. In the 8-ft. size, the stroke can be either four, six or eight inches, and larger sized mills give longer stroke when necessary.



Perfect Wonders Guaranteed



ADJUSTABLE STROKES IN ALL SIZES

Size	Strokes	Gear Ratio	Shipping Wts.
6-foot	4-6 inch	3½ to 1	340 lbs.
8-foot	4-6-7½ inch	3 to 1	416 lbs.
10-foot	5-7½-9 inch	2¾ to 1	625 lbs.
12-foot	6-8-11 inch	2½ to 1	927 lbs.
14-foot	8-10-11-12 inch	2¾ to 1	1444 lbs.

Built for Lifetime Service

Fifteen years testing in changing winds of many climates have demonstrated the value of this governing device. It is simple, yet unusually strong.

Weight ball on end of the shifting arm is adjustable and can be moved up or down on the arm to give automatic control in any wind. When weight is down the mill runs in the lightest breeze.

When the wind increases and becomes a gale, the wheel turns edgewise to the storm just enough to decrease its speed. And as the gale ends, the wheel automatically turns back and faces the breeze.

This Wonder control is made possible by the position of the main shaft and mill which is fully assembled and tested before it leaves the factory.

The weight raises in case of dangerous storm and also when mill is turned out of gear. Then the brake band tightens gradually just the same as on an automobile.

The brake drum upon which the band tightens is made in two parts which bolt securely to the hub. After years of wear, the drum may be replaced without removing any other parts.

Two small buffer springs, on the brake and on the vane, prevent jar in sudden shifting. You will note that no long springs or chains are used. None is necessary in this automatic design, which has passed every test for over 15 years.

The Wonder runs slower in a storm than in an ordinary wind. This has been proved on a test mill ninety feet above the ground which has run free without pumprod or other attachment and never turned out of gear for three years.

This mill governed itself. No fresh oil was given it during that time yet it operated perfectly. It successfully passed through two cyclones that uprooted nearby trees.

Interchangeable parts at every wearing point. Running in Bath of Oil. Balanced on ball-bearing turn-table. Responds to slightest breeze.

Cold rolled steel is used in double walking beam pins, the walking beam having a full length chamber packed with cup grease giving extra lubrication to upper parts.

Electric cast steel pitmans (unbreakable) are long to give extra power. Quickly adjustable in any of three strokes provided in 8 foot mill. This permits adjustment to suit each individual well in depth, or in length of pump cylinder. (3 strokes not found in other mills.) Note position of pitmans, giving **direct center lift over pump rod.**



Double, semi-steel, gears over 10 inches in diameter turn on steel tubing that is cast into the gear support and mesh perfectly with the double pinions on the main shaft. Note that pinions are at the side of gears, not above or below them as in poorly constructed mills. Each set works independently of the other, adjusting themselves and pulling evenly.

Bearings carry the load equally and are double the average size, giving double strength. They are supplied either in the well known Hyatt roller bearing design or in plain long wearing heavy fiber (vulcanized) which may be replaced after many years service without removing pinions or any working parts from shaft.

CAPACITIES OF MODEL B WONDER WINDMILLS
Wind Velocity 15 Miles per Hour

Dia. of Wheel Ft.	Length of Stroke	10 Feet Elevation		15 Feet Elevation		20 Feet Elevation		25 Feet Elevation		50 Feet Elevation		75 Feet Elevation		100 Feet Elevation	
		Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour
6	6"	4 1/2"	455	4"	400	3 3/4"	290	3 1/2"	325	2 1/2"	215	2"	165		
8	6"	6 1/2"	1000	6"	880	5 1/2"	750	4 1/2"	625	3 3/8"	400	2 3/8"	250	2 1/2"	185
10	7 1/2"	10"	2000	9"	1800	8"	1500	7"	1200	5"	650	4"	425	3 1/2"	325
12	8"	11"	3550	10"	2940	9"	2380	8"	1900	6"	1150	5"	800	4 1/2"	640
14	10"	Two 10 inch	5300	12"	4500	11"	3800	10"	3200	8"	1750	6"	1200	5"	1000

Dia. of Wheel Ft.	Length of Stroke	125 Feet Elevation		150 Feet Elevation		200 Feet Elevation		250 Feet Elevation		300 Feet Elevation		350 Feet Elevation		400 Feet Elevation	
		Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour	Dia. of Cyl.	Gal. per Hour
6	6"														
8	6"	2"	105	1 1/2"	80										
10	7 1/2"	3"	250	2 1/2"	200	2 1/2"	175	2 1/4"	125	2"	100				
12	8"	4"	525	3 1/2"	380	3 1/4"	305	2 3/4"	225	2 1/2"	200	2 1/4"	150		
14	10"	4 1/2"	750	4"	625	3 3/4"	525	3 1/4"	400	3"	325	2 3/4"	250	2 1/2"	200

HORSE POWER OF MODEL B WINDMILLS
In 15 Miles per Hour Wind

Size of Wheel, Feet	6	8	10	12	14
Horsepower	1/5	3/10	3/5	1	1-3/5

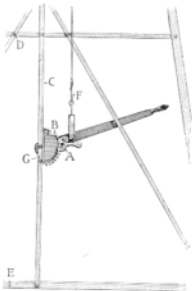
The Ball Bearing Turntable

This is placed at the bottom of the main frame pipe in the steel tower top instead of being on a tower cap. This lessens the twisting strain on the tower. The upper and lower plates are of box metal and they are flexible so that all the weight of the mill is at all times on all the balls. This ball bearing has been used on all of our mills for 25 years. The balls turn in cup grease and never need re-oiling. For further description, see Page 7.



PULL-OUT DEVICE

Here is shown the lower part of the steel tower with pull-out lever attached to the upright angle C. The wire F connects with angle steel shifting rod on tower top. This wire is tightened so the latch A will catch in the first notch of the casting G when the mill is out of the wind. As the wire stretches, this latch will drop into notches farther down. The wire F should be strained tight enough to draw the mill entirely out of the wind but not forced down so tight as to cause unnecessary strain.

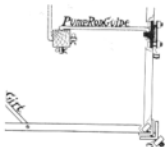


WONDER WINDMILL OIL

Here is a high grade non-freezing lubricating oil, refined for use in our guaranteed windmills. It is scientifically correct and will not freeze at zero or evaporate rapidly at high temperatures. More than one year supply is shipped with every Wonder. It is supplied also in 1, 5, 30 and 52 gallon quantities.

PUMP ROD GUIDES

Here are shown the pump rod guides and our method of securing them to the cross braces. The first guides should be placed 15 feet from the ground and the others above, 10 feet apart. The clamp casting holding them attaches to the crossed braces. The guides should be level when the pump-rod is half way up or down.



Model L Hummer

Always Strong

Now Stronger

Made in 10 and 12 ft. Sizes with Steel or Wood Wheel

For more than a quarter of a century Elgin vaneless windmills have maintained superiority. Thousands of the early models are doing their duty today. This Model L Hummer is without doubt the best direct stroke, open wheel mill we ever produced. Dealers tell us it is the best on the market, regardless of price.



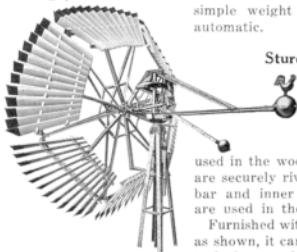
The Steel Wheel

Oil Once a Year

The main shaft runs in a casing filled with cup grease on long maple and vulcanized fiber bearings that are wide spread for greater strength—all enclosed and weather proof.

Self Governing

It runs slower in a storm than in a brisk wind, its wheel sections opening and exposing less surface to the gale. As the wind lessens, the sections resume a working position. This is done without chains or large springs by a simple weight design that is absolutely automatic.



The Wood Wheel

Sturdy Construction

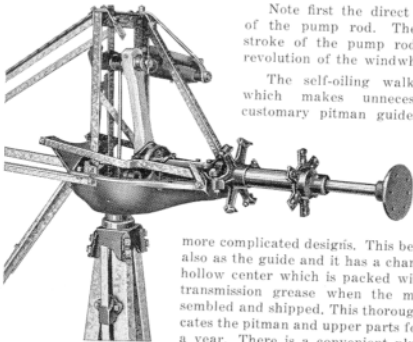
Arms and braces of 1 inch angle steel and with heavy band steel support the strong steel wheel. The same steel arms are used in the wood wheel. The steel blades are securely riveted to the 1 1/4 inch cross-bar and inner rim. Cement coated nails are used in the wood wheel.

Furnished with 3 or 4 post steel tower top as shown, it can be easily and securely attached to wood or steel towers of any kind.

Automatic Oiling

Vaneless — Few Working Parts — Direct Stroke

Here can be seen in detail the strength of design and the simplicity of construction in all working parts of the Hummer Model L. These have made it the preferred direct stroke mill of thoughtful buyers wherever vaneless mills are used.



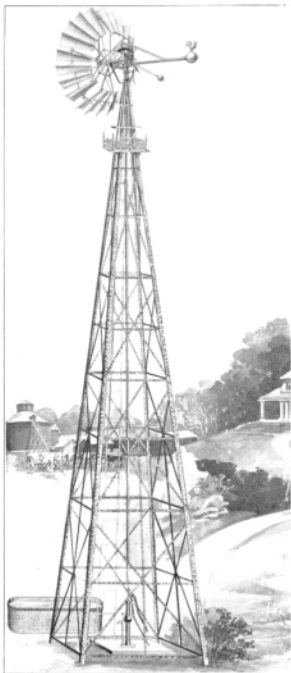
Note first the direct center lift of the pump rod. There is one stroke of the pump rod to every revolution of the windwheel.

The self-oiling walking beam which makes unnecessary the customary pitman guides used in

more complicated designs. This beam serves also as the guide and it has a chambered or hollow center which is packed with cup or transmission grease when the mill is assembled and shipped. This thoroughly lubricates the pitman and upper parts for at least a year. There is a convenient plug for re-filling.

Two Stroke Adjustments

The pitman is hard maple and the wrist pin of cold rolled shafting, both constantly lubricated by the walking beam. The crank-plate at the lower end of the pitman attaches directly to the main shaft. The shaft turns in a weather proof casing that also is packed with cup or transmission grease. The plate has two stroke adjustments—4 and 6 inch in the 10 ft. wheel; 6 and 8 inch in the 12 ft. size.



10 ft. Hammer on 50 ft. Giant tower, showing position of windwheel in 15 mile wind.

As Others See Us

Here's What They Say About Elgin Guaranteed Windmills

Working 33 Years

"My neighbor has an Elgin mill that has done the work for 33 years, and it does the work now. And these Elgin Giant towers are the strongest I have seen during 25 years selling them." — A. S. Kolle, Grant county, Minn.

Hard to Beat

"I have pumped water with my mill when the wind was blowing so hard that two neighbors with different makes didn't dare let theirs run. The Elgin windmill is hard to beat." — Arthur Ducker, Weld county, Colo.

Through the Storm

"I put up two Elgin mills that went through a cyclone sound as a dollar. They just turned out of gear and waited 'til it stopped blowing." — J. W. Gee, Jewell county, Kansas.

PUMP SPRING

The pump spring is of great importance and should be used on deep wells or hard working pumps. The cushion spring relieves the strain and lengthens the life of the entire pumping plant.

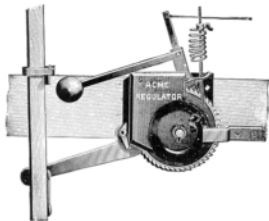


One of the thousands of users of the direct stroke Elgin Hummer, the first oil-once-a-year windmill, was asked what he thought of this grand-daddy of them all. He sent this picture, and said:

"The Elgin Hummer mill in this picture has been in daily use for 21 years without a cent of expense. And I am certain with about \$5.00 extras it will run for another 21 years."—F. F. Allmaras, Eddy county, N. D.

ACME WINDMILL REGULATOR

Keeps the tank full of water without care or attention. Pulls the Windmill out of the wind when the tank is full, and throws it into the wind when the water in the tank lowers five inches. While the Mill pumps the Regulator rests.



No fine adjustment required. Can be attached by anyone in half an hour. There are no springs to weaken, and nothing can get out of order.

Regulators packed one in a crate with screws, fixtures and directions. Weight 19 lbs. per box.



Elgin Giant Substructures for tanks are furnished upon specification. Give tank capacity and dimensions as well as elevation desired. Substructures can be furnished separately or complete with tanks.

Elgin Giant Suburban Towers



The Suburban Water Plant with tapered tower tank in the windmill tower usually is preferred for household purposes. It can be installed at less cost, and the windmill tower generally permits greater elevation and therefore greater water pressure in the home. Wood tanks are favored and will outlive metal tanks although they are more expensive.

Any of our regular Giant, Heavy Giant or Gibraltar towers may be used with tapered tower tanks. The construction is the same above the tank. Extra girts and braces are furnished for supporting the tank and also heavier corner posts and anchors. The weight of tower used below the tank must be determined by the size of the windmill and tank capacity.

FOUR POST STEEL TOWERS FOR TAPERED TANKS

	Tank Capacity	Tower Height	Elevates Tank	Tank Size	Tower Weight
Giant	320 gal.	30 ft.	10 ft.	3 ft. 10 in. Bottom	700 lbs.
	320 gal.	40 ft.	20 ft.	3 ft. 10 in. Bottom	960 lbs.
	320 gal.	50 ft.	30 ft.	3 ft. 10 in. Bottom	1160 lbs.
	320 gal.	60 ft.	40 ft.	3 ft. 10 in. Bottom	1470 lbs.
	500 gal.	40 ft.	15 ft.	4 ft. 10 in. Bottom	970 lbs.
	500 gal.	50 ft.	25 ft.	4 ft. 10 in. Bottom	1180 lbs.
Heavy Giant	500 gal.	60 ft.	35 ft.	4 ft. 10 in. Bottom	1490 lbs.
	770 gal.	40 ft.	10 ft.	5 ft. 10 in. Bottom	995 lbs.
	770 gal.	50 ft.	20 ft.	5 ft. 10 in. Bottom	1215 lbs.
	770 gal.	60 ft.	30 ft.	5 ft. 10 in. Bottom	1545 lbs.
	770 gal.	70 ft.	40 ft.	5 ft. 10 in. Bottom	2025 lbs.
	1170 gal.	40 ft.	10 ft.	5 ft. 10 in. Bottom	1000 lbs.
Gibraltar	1170 gal.	50 ft.	20 ft.	5 ft. 10 in. Bottom	1275 lbs.
	1170 gal.	60 ft.	30 ft.	5 ft. 10 in. Bottom	1575 lbs.
	1170 gal.	70 ft.	40 ft.	5 ft. 10 in. Bottom	2025 lbs.
Gibraltar	1980 gal.	50 ft.	20 ft.	7 ft. 10 in. Bottom	1428 lbs.
	1980 gal.	60 ft.	30 ft.	7 ft. 10 in. Bottom	1854 lbs.
	1980 gal.	70 ft.	40 ft.	7 ft. 10 in. Bottom	2390 lbs.

Elgin Wonder Power

For Every Farm Purpose

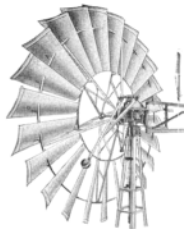
Wonder Power is offered to meet the demand of thousands of windmill users. Many remember the famous old Elgin Mogul of 30 years ago which furnished line-shaft power for feed grinding, wood sawing, pumping, churning, grindstone turning and the innumerable other power uses of every farm. It will do all these, and in addition furnish electricity for lighting the farm home and barns.

Electricity by wind power has been developed in many ways. The most generally known type of electric windmill has its generator in the mill-head on top of the tower. This has caused complaint because the farmer does not want to climb his windmill. And after all, it is only an electric windmill and necessitates the purchase of electric machinery for all other purposes. It requires electric motors for operating the various other machines on the farm.

Wonder Power meets this need. It is designed with a line shaft only 10 feet from the ground. This may be extended into the barn or machine shop. Many pulleys may be attached. This permits direct belt drive for pumpjacks, churns, grindstones, buzz saws, and all other small power machines.

The specially designed generator is attached by sprocket to this same power line and only ten feet from the ground. A step-ladder or box is all that is needed to reach it when necessary. This is not often. The generator, like the mill head, is enclosed and weather-proof.

Entire weight of mill rests on ball bearing turn-table down in the tower-top to give greater strength and quick adjustment to wind. This shifting of the entire weight of the mill down into the tower top is of great importance. This method, with tower top attached, is used on all Elgin windmills. Tests have shown that it gives far greater strength in storms than when mill rests on cap on top of tower.



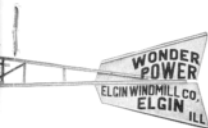
Vertical shaft connects gear line-shaft and generator firmly mounted in cradle. Designed for upper girts in our Heavy Giant and Gibraltar shaft 10 feet from ground sprocket and chain to foot



Master of the Air

Grinding Pumping Lighting

Machine-Cut Steel Gears
 Ten Timken Roller Bearings
 Running In Bath of Oil
 Self Governing—Can't Overcharge



ects mill (above) with foot-
 erator (below) which are
 le. Built to fit any tower.
 in bottom 10 foot section of
 braltar towers. Places line-
 nd. Generator attaches by
 ot-gear.

Here is the super-windmill for power purposes. It cuts out the terrific and constant oil and gas expense that goes with other power plants. It combines the best and most practical ideas of the windmill industry. It is presented by the originators of oil bath or self-oiling windmills and makers of celebrated Giant towers. It is the result of more than 45 years of exclusive windmill manufacture and like all other Elgin windmills, is sold under a 3-year parts guarantee.

Pictured at the left is the standard 12 foot Wonder Power mill with the bottom section of a 60 foot Heavy Giant tower. This shows the sturdy and practical arrangement of the power or line-shaft in its steel cradle at the top of the lower 10 foot tower section. Only the shifting of a clutch is necessary, just as in an automobile, in order to transmit power to the machinery. The generator operates automatically but may be disconnected by the clutch when greater power is desired for other machines.

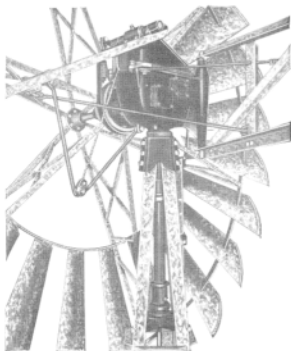
Wonder Power may be erected complete or installed simply as a power plant without any of the electrical equipment. The generator and battery and other electrical instruments for the complete farm lighting plant may be installed later.

The tower top as well as the vertical shafting which transmits the power to the horizontal line shaft are included with the mill. The steel cradle supporting the horizontal line shaft is designed to fit Heavy Giant and Gibraltar towers ten feet from the ground. Towers of other make can be used but care should be exercised to have a tower heavy enough for a 12 foot mill. This is the smallest wheel practical for real power purposes.



Powerful Windwheel and Vane

Eighteen blades of 21 gauge galvanized steel form six mighty sections that are securely rivitted to two rims of steel. The outer ends of the blades or fans are crimped to give greater strength. They cannot break off. The heavy arms have diagonal double bracing and a spread of 16 inches on the main shaft in the standard 12 foot wheel. The design is scientifically correct. It gives the greatest wind surface and is so evenly balanced as to assure maximum constant speed.



The vane frame is built entirely of galvanized angle steel, the angles varying in size as needed, from the smallest braces of $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ inch to the longest frame angle of $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{16}$ inch. Here again extra bracing is provided and in perfect balance with the wheel and head, this powerful vane swings freely on a hinge pin of $\frac{7}{8}$ inch cold rolled shafting in a bearing packed with cup grease.

No long springs are used in the simple gravity controlled shifting device. Steel rods connect the vane and frame and weight bar in a governing device that is absolutely automatic. It is very similar to that of the improved Wonder

Model B pumping mill except that in Wonder-Power a pull-out chain is used. This fastens with a clamp and bolt to a toggle joint, the chain passing through a special channel in the mill head. Only two small buffer springs to prevent jar are used in this long tested governing design.

The brake band of special steel applies automatically to the wide flange of the brake-drum just as easily and naturally as the brake on an automobile. This too is automatic and operates the same in case of storm as when the mill is turned out of gear by the pull out handle at the base of the tower.

The Inside of Wonder Power

Steel Gears and Pinions with Timken Bearings

Remove one bolt from the cover of its gray iron weather-proof housing. Here is shown a power plant that we firmly believe is the most perfect and powerful wind motor ever devised for farm power or farm lighting. This statement is made after two years of constant testing under every imaginable condition. Expense has not been spared in providing equipment that will endure.

Machine-cut steel gears and pinion run in a bath of zero-test oil.

The main shaft is of 1 7/16 inch highly polished cold rolled shafting having 40% carbon content.

Six Timken Tapered Roller Bearings

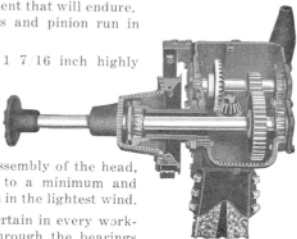


are used in this assembly of the head, reducing friction to a minimum and assuring operation in the lightest wind.

Perfect lubrication is certain in every working part, the oil flowing through the bearings and back into the reservoir. Gaskets are provided just as in an automobile and positively prevent leakage. A special oil-level oil-cup prevents over-filling and drain plug in the base of the main casting permits washing and reoiling once a year.

Nearly half a century of experience in windmill construction has conclusively proved to us the many advantages of transmitting the power of the windwheel through a vertical shaft to a footgear mounted ten feet above the ground. The weight of this shaft is carried on Timken bearings in the head to increase ease of operation. Connections at that point are made with screw couplings while at the foot of the shaft there is a special expansion coupling to permit truing and adjustment in the installation of the foot-gear.

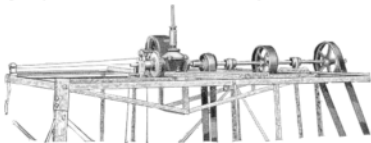
Special oil-impregnated wood bearings in cast iron casings are used in the vertical shaft guides. These are placed every five feet in the tower and are held in position by guide rods, this assembly giving the shaft a rigid direct drive which prevents vibration and loss of power.



Throw In Clutch for Power

Electricity is Automatic

Simply by throwing a clutch as you would in your automobile, you can connect instantly with power for the pump jack to raise water; for the feed grinder; the grind-stone or other machines. Two clutches and two pulleys are furnished and others may be added.

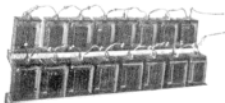


FOOT GEAR AND LINE SHAFT ASSEMBLY

Four Timken Tapered roller bearings, used at right angles, and with the gears running in an enclosed oil bath, make this foot-gear and line-shaft so free in operation that a child can turn it by hand. It promptly transmits all of the power of the windwheel above and through its gearing turns $10\frac{3}{4}$ times to every revolution of the wheel.

The horizontal line shaft and footgear are firmly mounted in a double braced cradle of angle steel. This is built in the form of a cross with each end firmly bolted to the angle girts of the tower. This can be located anywhere in the tower to suit requirements. The standard location is only 10 feet from the ground. The line shaft passed through the casing. To one end is attached a special friction clutch operating the electric generator by a steel sprocket and diamond chain. The other end extends to the tower girts and may be extended into the granery, barn, tool shed or milk house. Pulleys up to 15 inches in diameter may be used inside the steel cradle.

USE ANY STANDARD BATTERY

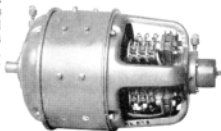


Electric current is supplied to the standard farm lighting battery from the generator after passing through the panel of electrical instruments shown on the adjoining page. This battery, used with 32 volt service, usually is the 16 cell type.

Instruments Govern Current

From Special Generator

All the instruments necessary for the automatic operation of this wind-electric light plant are on a panel encased in a steel cabinet. This can be conveniently placed on the wall near the battery. The instruments include an amper-hour meter which operates with an automatic switch. When the battery is fully charged, the meter disconnects and prevents over-charging. When one fourth of the charge has been consumed, it again connects and starts charging. Leakage of current is prevented by an automatic cut-out. The rate of charging or discharging can be read at any time on its meters. The necessary fuse and master-switch also are provided. The separate switch box can be placed anywhere on the line leading to the lights.



The special direct current generator of 1,000 watt, 40 volt and 25 ampere capacity is designed by one of the old reliable generator manufacturers. It is built to operate at varying speeds in changing winds. It is all enclosed and weather-proof. The ordinary gas engine generator cannot be used because it requires a constant even speed. All parts of this generator and the other electrical equipment meet the requirements of the U. S. Bureau of Standards and are guaranteed to us against defective material or workmanship for a period of one year. This also is our guarantee.



Wire Sizes Important

Care should be exercised in placing the instrument panel and battery in barn or shed as close to mill as possible to prevent loss of power from excess wiring. There are two main current wires and one field wire from the generator. The size of the necessary wire is determined by the distance from the generator to the battery. The same rules for wiring any farm light plant cover this wiring. The following tabulation shows maximum distances for various even wire sizes:

Distance	Main Wires	Field Wire	Distance	Main Wires	Field Wire
30 ft.	No. 8	No. 10	75 ft.	No. 4	No. 6
50 ft.	No. 6	No. 8	125 ft.	No. 2	No. 4

Note: Instrument panel is fully assembled, wired and tested before shipment. Other wire in sizes needed can be furnished at current market prices.



Iowa Farm Lighted by Wonder-Power

Wonder Power Test Results

Constant tests over a period of two years have more than proved every claim now made for Wonder-Power. Good reports were received from users. But in order to make more thorough tests, one of these 12 foot stock mills was mounted on a 60 foot Heavy Giant tower on the top of our main factory building. Its vertical shaft was extended through the roof to its complete line-shaft in the testing room.

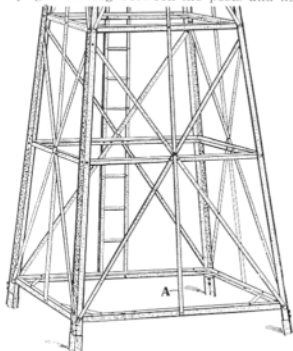
Long strings of lights were connected to the standard farm light battery used in this test. Belts were attached from the line-shaft to a pump-jack on a well requiring more than 100 foot water lift. Other belts were connected to feed grinders.

These tests proved beyond doubt that in a strong steady wind there is sufficient power for constant 25 ampere charging of the battery. And at the same time, Wonder Power will operate the pump-jack, raising water 100 feet. They have shown that there also is sufficient power for running a 6 inch burr feed grinder. After fifteen months operation, the special zero test oil in the head of the mill was examined and showed only slight deterioration. Testing of the electrical instruments proved them to be absolutely automatic in operation.

Giants Stand—Others Fall

**Galvanized Steel Towers with Angle Steel Girts Every Five Feet;
Band Steel Braces; No Wires; No Rods; No Extras to Buy**

Elgin galvanized steel towers have been built stronger and stiffer than the average tower—able to stand greater wind pressure. Corners and girts are of special high carbon steel. Band braces are open hearth mild steel. The corner angles are firmly braced and spliced at the point of greatest strain—in the corner. In addition, they have angle steel corner girts. And all towers above 30 feet in height have extra upright bracing between the posts and firmly joining all the girts.



All are four post towers, built in 10 foot sections, from 20 to 80 feet in height, and can be easily erected in sections or fully assembled and raised. No adjusting is necessary. They will stand in any storm that does not wreck substantial buildings.

There are four sizes or weights as follows:

ELGIN—For 6-ft. and 8-ft. Mills. Girts every 5 feet. Corner Angles 2x2x $\frac{1}{2}$ inch.

GIANT—For 8 and 10-ft. Mills. Girts every 5 feet. Corner Angles 2 $\frac{1}{2}$ x2 $\frac{1}{2}$ inch.

HEAVY GIANT—For 8, 10 and 12-ft. Mills. Girts every 5 feet. Corner Angles 2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x3/16 inch. 10 and 80 ft. Sections, 3x3x3/16 inch.

GIBRALTAR—For 8, 10, 12 and 14-ft. Mills. Girts every 3 ft. 4 in. Corner Angles 2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x3/16. 50, 60, 70 and 80 ft. Sections, 3x3x3/16 inch.

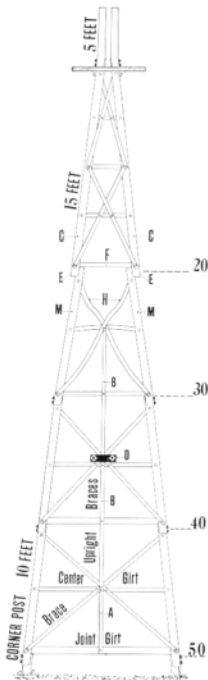
ANCHORS, ANCHOR POSTS, HEAVY STEEL LADDER AND PLATFORM SHIPPED WITH EVERY TOWER

Any of our towers can be used with any mill we build but care should be used to select one heavy enough to safely carry the mill. The top 20 feet of all our towers except the 25 foot Special consists of a 15 ft. length and a 5 ft. steel tower top. The 25 ft. Special has two 10 ft. lengths and the 5 ft. tower top. The steel top is always shipped with the mill and can be used for wood or steel tower as desired.

SPREAD OF STEEL TOWERS AT THE GROUND

20-ft. tower 4 ft. 3 in.	40-ft. tower 8 ft. 3 in.	70-ft. tower 14 ft. 3 in.
25-ft. special 6 ft. 3 in.	50-ft. tower 10 ft. 3 in.	80-ft. tower 16 ft. 3 in.
30-ft. tower 6 ft. 3 in.	60-ft. tower 12 ft. 3 in.	Spread at Platform, 14 in.

Method of Tightening Braces



Our towers are better braced than those of other makes, as clearly shown in this drawing of a 50-foot tower complete with platform and tower top. Note the extra upright support extending from the braces H to the ground and bolted to the center of every girt they cross. This doubles the strength of the girts and gives the tower a fine appearance.

It will be observed that the braces of one length are loose. The splice bolts E are left loose until all other bolts in the section are put in place and tightened. The splice bolts are then tightened, drawing the corner posts M out against the posts C. This tightens the cross braces H. The rule applies to each 10-foot section. Every bolt can be put in place without the use of punch or hammer and when the tower is finished the braces will have the proper tension to give them the greatest possible strength.

All Elgin, Giant and Gibraltar towers are made from one set of patterns. The sections or lengths are interchangeable. The height can be changed after it leaves the factory. If a customer has a high tower, he can use from it one of less height. If the tower is too low, he can order one or more 10-foot sections to make it any desired height. When the height is increased 20 feet or more, longer anchor posts should be used.

The Ladder

Many farmers are afraid to climb a windmill tower. Therefore a strong, spacious ladder is of vital importance. Our ladders are made of 1x1x $\frac{1}{4}$ angle steel, tested under a strain of 1,000 pounds, making a much better ladder than is commonly used.

Anchor Posts

The anchor post is of great importance. We have used a variety of plates, but find the angle steel anchors we are now using the most satisfactory. See Fig 3.

It being necessary to hold a tower from settling, the stone S in Fig. 3 is **very important**. Cement over the anchors is preferable. However, if it cannot be had, stone or heavy pieces of hard wood may be used.

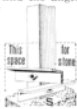


Fig. 3

Erect by Sections or Raise Complete

These towers can be easily erected section after section and the mill lifted into position with block and tackle, or they may be just as easily assembled on the ground and then raised. Full instructions for both methods are given with every mill shipment, or upon request. The erector needs only follow directions and remember that all girts fasten inside the corner angles; that all braces go inside the corner angles at the top and outside the angle at the bottom.



Hero Tower Hinge

When tower is assembled either with or without mill and then raised,



the use of these hinges is recommended. They lessen labor and liability of accident. They are made of malleable iron and steel and are adjustable to fit any tower we build. In

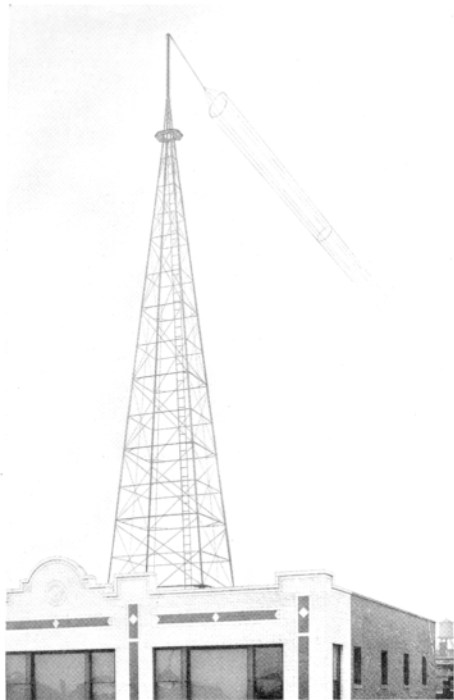
getting the proper angle of anchor posts, we suggest bolting together the bottom 10-ft. section of the tower. This can be bolted to the anchor posts and leveled. Then, after putting the tower hinges in place, the 10-ft. length can be laid over on its side and the balance of the tower attached to it.

Doorway for Elgin and Giant Towers

The cross braces 1 and 2 are of angle steel. These are bolted to the inside of the tower posts. The door frame and center girts are bolted on the outside. This construction is very strong, and its convenience is worth the small additional cost.



Radio Uses Elgin and Giant Towers



Station WGBF, Evansville, Ind.

For Greater Strength—Gibraltar

With Corner Girts Every 3 feet 4 inches

Here is shown the mighty construction of our Gibraltar galvanized steel towers. They are made in the same convenient 10-ft. lengths and in all sizes from 20 to 80 feet. They are designed to carry any mill up to 14-ft. size. The same tower with even heavier material is quickly made for larger mills.

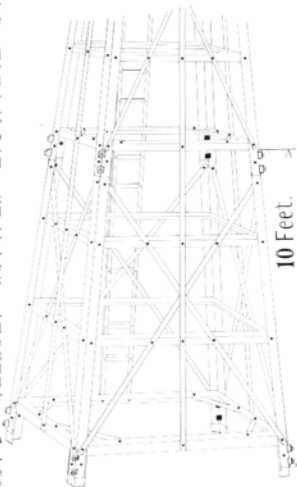
Note the angle steel girts every 3 ft. 4 in. firmly bolted to every diagonal brace and to the extra upright support in the center. Note the angle corner girts. Gibraltar lives up to its name. There is nothing stronger in windmill towers.

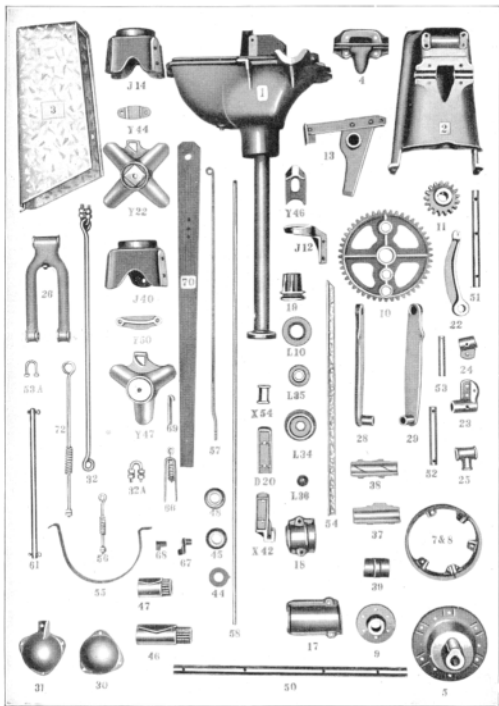
Corner posts are $2\frac{1}{2} \times 2\frac{1}{2} \times 3/16$ inch angle steel up to a height of 40 feet. When the 50, 60, 70 or 80 foot towers are ordered, the corners of these sections are built of $3 \times 3 \times 3/16$ inch angles.

The spread of the Gibraltar at the platform and at the ground is the same as the Elgin and Giant towers so that any size mill may be used. Special doorways are built for this tower when desired.

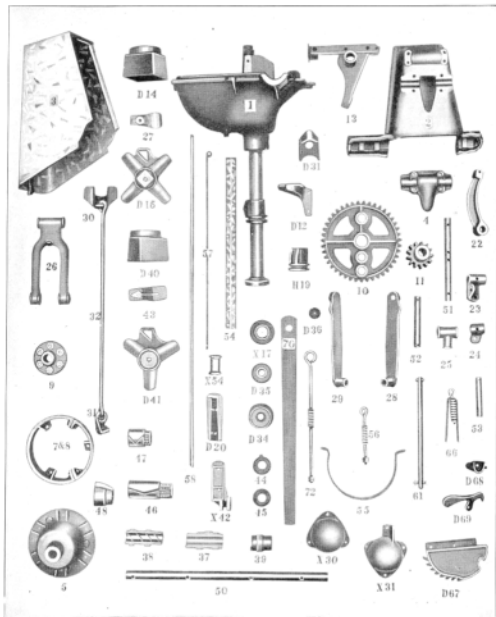
Radio and Special Towers

Radio Broadcasting stations at many points use the regular Elgin or Giant towers for supporting their aeriels. In this connection the regular tower top is used with a galvanized steel mast. A few of the stations using them are at Evansville, Ind., Decatur, Ill., La Crosse, Wis., and Sioux Falls, S. D. The superior bracing of these towers make them desirable also as bell towers, as aviation beacon-light towers, and as signal towers. Special towers are designed for many purposes.





Wonder Model B—10, 12 and 14 Foot Parts—See Pages 34 - 36



Wonder Model B—6 and 8 Foot Parts—See Pages 34 - 36

REPAIR PARTS—ELGIN WONDER MODEL B

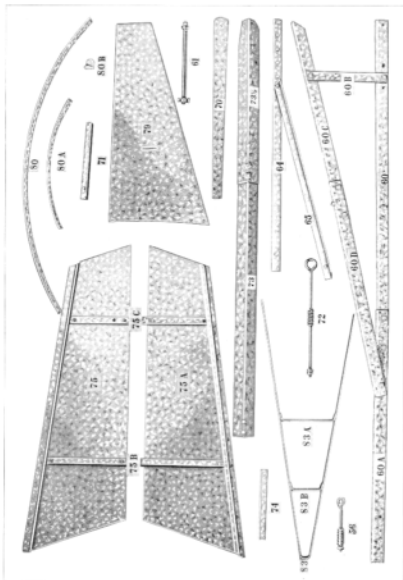
	No. of Part	6-ft. Letter H	8-ft. Letter K	10-ft. Letter W	12-ft. Letter NN	14-ft. Letter TT
Main Casting with Pipe	1	\$10.00	\$14.00	\$20.00	\$28.00	\$38.00
Cover Over Gears, rear (Castiron)	2	5.00	7.50	10.00	13.00	18.00
Steel Helmet over Gears	3	2.25	2.75	3.50	4.00	4.75
Cap over No. 22 Rocker Arm	4	.60	.85	1.25	1.50	1.75
Large Wheel Hub	5	2.75	3.00	3.75	5.25	8.00
Flange Coupling (Export only)	5½		2.00	2.50	2.75	3.25
Oil Guard (Sheet Steel)	6	.50	.60	.75	1.00	1.25
Brake Drum in Two Parts	7&8	1.50	1.75	2.00	2.25	2.75
Small Wheel Hub (Nosepiece)	9	1.25	1.50	1.75	2.25	2.75
Main Gears, each	10	2.50	3.50	4.00	5.50	6.50
Pinions, each	11	1.25	1.50	1.75	2.50	3.00
Shifting Fork over No. 19	D-12	.50	.50			
Shifting Fork over No. 19	J-12			.75		
Shifting Fork over No. 19	12&112				1.35	1.60
Center Piece with Gear Bearings	13	1.50	2.75	3.50	5.00	6.50
Tower Cap, 4-post	D-14	2.50	2.50			
Tower Cap, 4-post	J-14			4.00		
Tower Cap, 4-post	S-14				6.00	
Tower Cap, 4-post	TT-14					9.50
Tower Step, 4-post	D-15	1.50	1.50			
Tower Step, 4-post	Y-22			2.50		
Tower Step, 4-post	Z-22				4.00	
Tower Step, 4-post	TT-15					5.00
Cover over Ball Bearing	X-17	1.00	1.00			
Cover over Ball Bearing	L-10			1.20		
Cover over Ball Bearing	S-36				1.50	
Cover over Ball Bearing	TT-33					2.00
Cap over Front Bearing	17			2.00	2.25	3.50
Cap over Rear Bearing	18			1.75	2.75	3.00
Shifting Thimble on Main Pipe	19	1.00	1.00	1.50	2.00	2.75
Upper Pumprod Coupling with Bolts and Coupling X-54	D-20	1.25	1.25	1.25		
Upper Pumprod Coupling with S-45	S-20				1.75	
Upper Pumprod Coupling with TT-21	TT-20					2.00
Rocker Arm	22	1.50	2.00	2.50	3.50	4.50
Brake and Governing Weight Castg.	23	1.00	1.25	1.50	1.75	2.00
Governing Weight Bar Casting	24	.50	.60	.70	.95	1.25
Crosshead on Plunger Rod	25	.90	.90	1.00	1.25	1.50
Walking Beam	26	2.00	2.25	2.75	3.75	5.00
Guide Casting on 4-post Tops	27	.30	.30		.60	.90
Guide Casting on 4-post Tops	Y-44			.50		
Steel Pitman, left	28	1.40	1.75	2.25	3.00	4.50
Steel Pitman, right	29	1.40	1.75	2.25	3.00	4.50
Governing Casting on No. 32	30	.50	.50			
Governing Casting on No. 32	31	.50	.50			
Governing Rod	32	.75	1.00	2.25	2.50	2.75
U Bolts for Governing Rod	32A			.40	.50	.60
Stop Casting in Tower Top	D-31	.50	.50			
Stop Casting in Tower Top	Y-46			.60		
Governing Weight	33	1.25				
Governing Weight in two parts	X-30&31		1.75	1.95	2.00	2.50
Ball Bearing Turntable, lower	34	1.00	1.00	1.25	1.50	2.00
Ball Bearing Turntable, upper	35	.75	.75	1.00	1.25	1.50
Tempered Steel Balls, each	36	.10	.10	.10	.12	.15
Front Bearing, lower half	37	1.25	1.50	1.75	2.00	2.75
Front Bearing, upper half	38	1.00	1.25	1.50	1.75	2.25
Rear Bearing, plain	39	1.25	1.50	1.75	2.00	2.75
Tower Cap for 3-post Towers	D-40	1.65	1.65			
Tower Cap for 3-post Towers	J-40			3.00		
Tower Cap for 3-post Towers	S-40				5.00	
Tower Step for 3-post Towers	D-41	1.50	1.50			
Tower Step for 3-post Towers	Y-47			2.25		
Tower Step for 3-post Towers	Z-47				3.00	
Pump Coupling, lower	X-42	.80	.80	.80		
Pump Coupling, lower	Z-42				.90	
Pump Coupling, lower	TT-42					1.10
Guide Casting on 3-post	43	.30	.30		.60	
Guide Casting on 3-post	Y-50			.50		
Oil Stop in Front Bearing	44	.20	.20	.30	.35	.40
Hyatt Roller Bearing, front	46	3.50	3.50	5.00	5.20	5.50
Hyatt Roller Bearing, rear	47	2.40	2.40	3.60	3.65	4.00
Oil Distributing Cup, Hyatt Bearing, front	48	.75	.75	.85	.95	1.10
Oil Distributing Cup, Hyatt Bearing, rear	49	.60	.60	.70	.80	1.00
Main Shaft	50	1.80	2.20	2.80	3.50	4.50
Shaft for Rocker Arm	51	.65	.90	1.00	1.25	1.75
Crosshead Shaft	52	.50	.50	.60	.75	1.00
Walking Beam Shaft in No. 2	53	.20	.20	.30	.40	.50

REPAIR PARTS—ELGIN WONDER MODEL B (Cont'd)

	No. of Part	6-ft. Letter H	8-ft. Letter K	10-ft. Letter W	12-ft. Letter NN	14-ft. Letter TT
U Bolt for Walking Beam Shaft	53A	.20	.20	.25	.35	.40
Shifting Rod (Angle Steel)	54	.50	.50	.75	.85	.95
Brake Band	55	.60	.65	.90	1.00	1.50
Brake Band Hook with Spring	56	.50	.50	.65	.75	1.00
Shifting Rod Connecting No. 22 to No. 19	57	.80	1.00	1.25	1.40	1.75
Plunger Rod	58	.50	.70	.90	1.10	1.75
PARTS FOR VANE FRAME:						
Main Bar (Domestic)	60	2.00	2.40	3.00	3.75	5.00
Main Bar (Export)	60A	1.25	1.50	2.00	2.50	3.25
Angle that Buffer Rod works thru.	60B	.80	1.00	1.25	1.50	3.00
Upper Angle Bar (Domestic)	60C	1.25	1.50	2.00	2.75	3.75
Upper Angle Bar (Export)	60D	1.25	1.50	2.00	2.50	3.25
Angle Brace	60E			.50	1.00	1.25
Angle Brace	60F				.75	1.00
Angle Girt	60G				.80	1.00
Angle Girt	60H					.40
Hinge Shaft for Vane Frame	61	.50	.75	.90	1.00	1.75
Casting on Vane Frame for No. 61 for 12 and 14-ft. mills only	62				.40	.50
Bronze Bushing in Main for 12 and 14-ft. mills only	63				1.00	1.25
Angle (Weight Bar) to No. 23	64	.70	.80	.90	1.10	1.50
Angle (Weight Bar) to No. 24	65	.50	.60			
Angle (Weight Bar) to No. 24	64A			.80	.90	1.40
Angle that No. 32A Bolts to	64B			.40	.40	.50
Tie Straps between 64 & 64A, each				.15	.15	.15
Strap, Hook and Spring on Handle	66	.60	.60	.60	.75	
Ratchet Casting	D-67	1.00	1.00			
Hand Lever Casting	W-67			.30	.30	
Hand Lever Casting	W-68			.30	.30	
Cover over D-69	D-68	.30	.20			
Ratchet Hook	D-69	.30	.30	.30	.30	
Pull-out Handle (Wood)	70	1.00	1.25	1.50	2.00	
Angle for No. 30 & 31 Weight	71	.50	.75	1.00	1.25	1.75
Buffer Rod with Spring	72	1.00	1.25	1.50	1.75	2.00
Corner Angle of Tower Top, each	73	2.00	2.00	2.40	3.00	4.00
Angle Steel Girts, each	74	.40	.40			
Angle Steel Girts, upper, each	73A			.45	.45	.45
Angle Steel Girts, lower, each	73C			.50	.55	.60
Angle Steel Girts, center, each	73B					.50
Cross Brace, each	73D					.50
Vane, Sheet (upper half)	75	1.25	1.50	2.00	2.70	3.75
Vane, Sheet (lower half)	75A	1.25	1.50	2.00	2.75	3.75
Large Cross Bar (outer end)	75B	.50	.60	.75	1.00	1.50
Small Cross Bar (inner end)	75C	.40	.50	.60	.75	1.00
Center Bar on Vane	75D				.30	.50
PARTS FOR WINDWHEEL:						
Windwheel Blade, each	79	.80	1.00	1.25	1.50	1.75
Large Windwheel Rim	80	.80	1.00	1.25	1.50	2.50
Small Windwheel Rim	80A	.75	.80	1.00	1.25	1.75
Clip for Blade to Rim	80B	.10	.10	.10	.20	.30
Clip for Blade to Rim	80C				.25	.30
Clip for Blade to Rim	80D					.30
Clip for Blade to Rim	80E					.30
Arm	83	1.00	1.25	1.50	2.00	3.00
Arm Brace	83A	.40	.50	1.25	1.40	1.75
Arm Brace	83B	.50	.60	.70	.80	.90
Arm Brace	83C			.65	.75	.85
Pull-out Handle, complete		2.50	2.75	2.00	2.50	
Pull-out Ratchet Gear						5.55
Pumprod Splice Irons, per set		.50	.50	.50	.60	.75
Pumprod per lineal foot		.10	.10	.10	.12	.15
Main Casting Complete with all working parts—Plain Bearing		32.00	38.00	60.00	74.00	110.00
Main Casting complete with all working parts—Hyatt Bearing		37.50	43.50	67.50	82.00	120.00
Tower Top Assembled		12.50	12.50	17.00	23.00	32.00
Vane Frame Assembled		3.50	4.00	5.50	8.00	11.00
Governing Weight Frame Assembled		2.75	3.25	4.50	6.50	9.00
Windwheel Section complete		4.00	4.50	6.50	8.00	9.00
Windwheel Arm complete		1.00	1.25	1.50	2.25	3.50
Windwheel Complete Arms, Sections and Bolts		22.00	35.00	48.00	65.00	88.00
Rocker Arm Assembled		2.75	3.25	4.00	5.00	6.50
Main Shaft Assembled for Plain Bearing		3.00	9.50	11.00	14.00	20.00

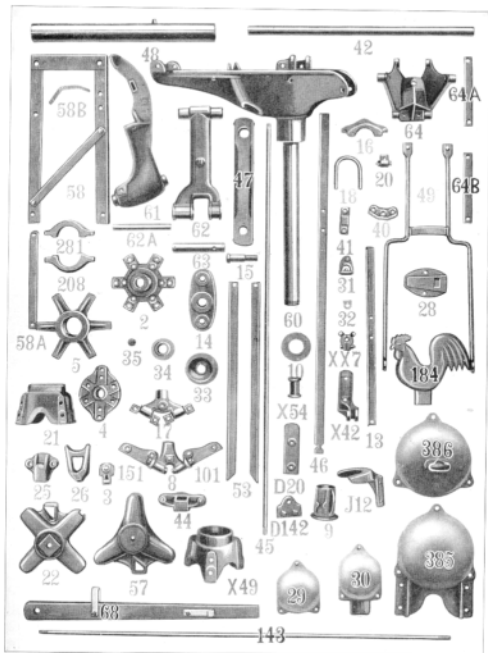
REPAIR PARTS—ELGIN WONDER MODEL B (Cont'd)

	No. of Part	6-ft. Letter H	8-ft. Letter K	10-ft. Letter W	12-ft. Letter NN	14-ft. Letter TT
Main Shaft Assembled for Hyatt Roller Bearing		10.00	12.00	15.00	18.50	26.00
Main Casting complete as shipped with mill—Plain Bearing		40.00	48.00	72.00	96.00	148.00
Main Casting complete as shipped with mill—Hyatt Bearing		45.00	53.00	79.00	112.00	158.00
Windwheel complete as shipped with mill		32.00	40.00	55.00	75.00	100.00
Vane Frame complete as shipped with mill		7.00	9.00	11.50	15.00	25.00
Vane complete as shipped with mill		2.75	3.50	4.50	6.00	8.00



REPAIR PARTS—Elgin Hummer Model L

For Parts List See Page 38



REPAIR LIST FOR 10 AND 12-ft. HUMMER MILLS

NOTICE

When ordering be sure to give letter and number of casting desired, letter and number of main casting, size of mill, and state whether for wood or steel wheel.

	No. of Part	10-ft. Letter L	12-ft. Letter P
Main Casting with pipe	1	10.00	15.00
Windwheel Hub (large)	2	1.60	2.40
Windwheel Hub (small)	4	1.20	1.80
Sliding Head	5	2.00	3.00
Triangle for Shifting Sections	6	2.00	3.00
Crank plate, single stroke (see note below)	7	2.00	3.00
Shifting Thimble	9	.90	1.80
Cover over Ball Bearing	10	.40	.60
Pitman Guide and Guide Rods	12	2.00	3.00
Crank plate, two stroke	14	2.00	3.00
Wrist pin for above	15	1.20	1.80
Clamp over main shaft pipe	16	.50	.70
Arm & Fan Joint Castings, each	17	.80	1.20
Sail Lever Castings on fans, each	20	.30	.40
Tower Cap, 4-post	21	2.50	3.70
Step, 4-post	22	2.50	3.70
Guides for Side Shifting Rods, each	24	.30	.40
Guide Casting on Steel Top	25	.50	.70
Stop to hold mill from raising	26	.50	.70
Guide Casting for upright shifting rod	27	.40	.60
Arm Weight	28	.80	1.20

NOTE:—The two-stroke crank plate was adopted the forepart of 1919 in place of the single stroke, the new one being secured on the shaft by one pin and a key, while the old one was fastened on with two pins. When ordering crank plates always specify whether the single stroke or two stroke is wanted.

	No. of Part	10-ft. Letter L	12-ft. Letter P
Governing Weight	29	2.00	3.00
Hand Lever Casting	31	.30	.40
Hand Lever Casting	32	.30	.40
Steel Balls, each		.10	.10
Ball Plate, lower, Box Metal	33	1.00	1.50
Ball Plate, upper, Box Metal	34	.80	1.20
Sail Lever Support Castings, each	40	.30	.40
Rod	41	.30	.40
Top Casting on Upright Shifting Main Shaft	42	3.50	5.20
Main Shaft Bearing, front	43	1.00	1.50
Main Shaft Bearing, rear	44	1.00	1.50
Plunger Rod	45	1.20	1.80
Upright Shifting Rod	46	.80	1.20
Pitman (wood)	47	.90	1.30
Pipe for Main Shaft complete with Bearings	48	4.00	6.00
Side Shifting Rods, each	49	.80	1.20
Hook from No. 6 to 49	50	.50	.70
Wood Guide blocks, each	51	.20	.30
Flat Steel Links from No. 6 to 41, each	52	.20	.30
Guide Frame Braces, each	53	.80	1.20
Rooster Weight Bars, each	54	1.60	2.40
Rooster Weight Brace	55	1.20	1.80
Governing Weight Bar	56	.80	1.20
Sliding Head Shoe, top, Box Metal	108	.80	1.20
Sliding Head Shoe, bottom, Box Metal	181	.80	1.20
Pork over No. 9	J-12	.60	.90
Wood Rod Coupling	D-20	.40	.60
Coupling between Nos. 45 and D-20	X-54	.30	.40
Pump Coupling	X-88	.40	.60
Rooster	E-184	1.50	2.20
Balance Weight, bottom	E-385	3.00	4.50

	E-386	2.50	3.70
Balance Weight, top	E-386	2.50	3.70
Balance Weight		5.00	7.50
One Corner of Steel Top		2.00	3.00
Steel Tower Top, complete		10.00	15.00
Main Casting complete, with all working parts		20.00	43.50
Main Castings complete as shipped with mill		38.00	57.00
Balance Weight complete as shipped with mill		18.00	27.00
Truss Frame		3.50	5.20
Pumprod complete as shipped with mill		3.50	3.50

In the forepart of 1919 we made an improvement on our Model F Hummer, adopting the walking beam pitman guide, No. 62, to take the place of the pitman guide and guide rods, No. 12. This necessitated a few other slight changes and therefore in ordering repairs always specify whether they are for the Model F Hummer or for the improved mill which we call Model L.

PARTS FOR MODEL L HUMMER

	No. of Part	10-ft. Letter L	12-ft. Letter P
Main Casting	60	10.00	15.00
Walking Beam	62	2.70	3.60
Walking Beam support	61	2.70	3.60
Walking Beam hinge pin, long		.50	.70
Walking Beam hinge pin, short		.60	.90
Triangle for shifting sections	64	2.00	3.00
Sliding Head Shoe, top	208	.80	1.20
Sliding Head Shoe, bottom	281	.80	1.20

PARTS FOR STEEL WINDWHEEL

	No. of Part	10-ft. Letter L	12-ft. Letter P
Arms, each		1.00	1.50
Arm Braces, each		1.00	1.50
Angle Steel Support for Sail Levers, each		.40	.60
Arm and Fan Joint Casting, each	17	1.00	1.50
Arm complete with Joint Casting		3.00	4.50
Sail Levers complete, each		1.20	1.80
Sail Lever Castings on Fans, each	20	.30	.40
Sail Lever Support Castings, each	40	.30	.40
Windwheel Blades, each		.90	1.30
Windwheel Blade Clips, each		.10	.10
Cross Bar for Blades, each		1.20	1.80
Inner Rim, each		.80	1.20
Angle Steel between rim and cross bar, each		.50	.70
Section, complete		4.20	6.30
Windwheel complete as given above		34.00	51.00
Grate complete as shipped with mill		27.00	40.50

PARTS FOR WOOD WINDWHEEL

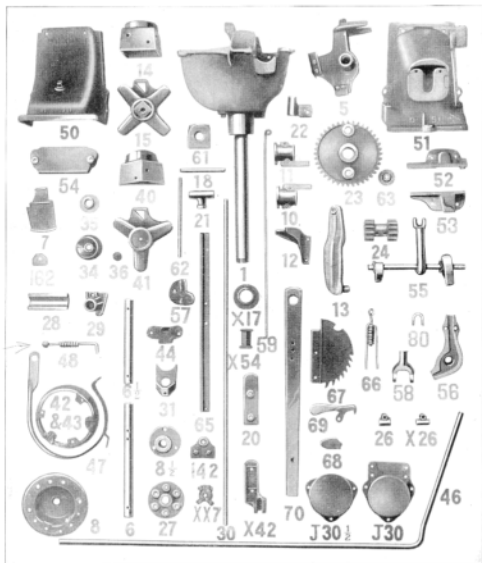
	No. of Part	10-ft. Letter L	12-ft. Letter P
Arms, each		1.00	1.50
Arm Braces, each		1.00	1.50
Arm Joint casting	8	.80	1.20
Arm and Fan Joint casting	A101	.40	.60
Arm and Fan Joint casting	A151	.40	.60
Arm complete with joint casting		3.00	4.50
Sail levers, complete		1.20	1.80
Sail lever castings	3	.30	.40
Section, complete		4.00	6.00
Wood Slats, each		.20	.30
Windwheel complete as given above		31.00	46.50
Grate complete as shipped with mill		24.00	36.00

REPAIR LIST FOR 8, 10 and 12-ft. WONDER MILL MODEL A

NOTICE: When ordering be sure to state size of mill	No. of Part	8-ft. Letter D	10-ft. Letter J	12-ft. Letter S
Main Casting	1	\$ 8.00	\$12.00	\$16.00
Center Piece in main casting	5	1.70	2.50	3.40
Main Shaft	6	1.80	2.70	3.60
Cap over main shaft bearing No. 28	7	.60	.90	1.20
Hub of windwheel	8	1.50	2.40	3.20
Flange on No. 8 for brake band, in 1 piece	9	.80	1.20	1.60
Shifting Shoe, left	10	.40	.60	.80
Shifting Shoe, right	11	.40	.60	.80
Swivel Casting over Nos. 10 and 11	12	.50	.70	1.00
Pitmans, each	13	1.40	2.10	2.80
Tower Cap, 4-post	14	1.40	2.10	2.80
Tower Step, 4-post	15	1.40	2.10	2.80
Wood rod Coupling	20	.50	.70	1.00
Upper Casting for No. 30	21	.30	.40	.60
Vane Support on No. 1	22	.60	.90	1.20
Main Gears, each	23	1.80	2.70	3.60
Double Pinion	24	1.40	2.10	2.80
Nose Piece	27	.90	1.30	1.80
Bearing for main shaft, front	28	.50	.70	1.00
Bearing for main shaft, rear	29	.60	.90	1.20
Plunger rod	30	.80	.90	1.20
Stop to hold No. 1 from raising	31	.30	.40	.60
Ball Plate, lower, Box Metal	34	.90	1.30	1.80
Ball Plate, upper, Box Metal	35	.60	.90	1.20
Cover over ball bearing	36	.60	.90	1.20
Balls for turn table, tempered steel, each10	.10	.10
Tower Cap, 3-post	40	1.40	2.10	2.80
Tower Step, 3-post	41	1.40	2.10	2.80
Larger part of No. 44	42	.60	.90	1.20
Smaller part of No. 44	43	.50	.70	1.00
Flange on No. 8 for brake band, in 2 parts	44	1.10	1.60	2.20
Swivel Coupling between Nos. 30 and 20	45	.30	.40	.60
Governing weight Bar	46	1.40	2.10	2.80
Brake Band	47	.40	.60	.80
Covering over gears, front	50	3.00	4.50	6.00
Covering over gears, rear	51	3.30	4.90	6.60
Box over No. 55, upper	52	.60	.90	1.20
Box over No. 55, lower	53	.70	1.00	1.40
Cap over Nos. 50 and 51	54	.50	.70	1.00
Rocker Arm	55	1.30	1.90	2.60
Casting which attaches Nos. 46 to 55	56	.30	.40	.60
Guide for No. 65	57	.30	.40	.60
Shifting Rod, connecting with No. 55	59	.40	.60	.80
Wood Blocks which guide No. 30, each	61	.30	.40	.60
Guide Rods over which wood blocks work, each	62	.30	.40	.60
Washers on Main gear hubs, each	63	.20	.20	.40
Tower step for 10 and 12-ft. long stroke mills	64		2.10	2.80
Angle Iron Guide Rod connecting with No. 12	65	.40	.60	.80
Brake and Buffer Spring, each	66	.20	.30	.40
Pump Coupling	88	.30	.40	.60
Main shaft complete with Nos. 27, 8, 9, 24		6.00	9.00	12.00
Plunger rod complete with Nos. 21, 45 and 20		1.50	2.30	3.00
One corner of steel top		2.00	3.00	4.00
Steel Top complete with Nos. 14 and 15		9.00	13.50	18.00
Main Casting complete with all working parts		23.00	34.50	46.00
Main Casting complete with 5-foot stub tower as shipped with mill		30.00	45.00	60.00
VANE FRAME PARTS				
Vane frame (Angle steel)		3.00	4.50	6.00
Rudder (Sheet steel)		3.00	4.50	6.00
Buffer spring rod with spring50	.70	1.00
Swivel Casting on Vane Frame	25	.20	.30	.40
Swivel Casting on No. 46	26	.20	.30	.40
Swivel Casting between Nos. 25 and 26, each	58	.30	.40	.60
Vane Frame complete as shipped with mill		8.00	12.00	16.00
WINDWHEEL PARTS				
Arms, each		1.40	2.10	2.80
Blades, clips attached, each80	1.20	1.60
1 Section complete, 3 blades		3.50	5.30	7.00
Windwheel complete as given above		25.00	35.00	48.00
Windwheel complete as shipped with mill		28.00	40.00	54.00

REPAIR PARTS—Elgin Wonder Model A

For Parts List See Page 39



— NOTICE —

Prevent mistakes. Order by letter and number of part desired. If your Elgin windmill has parts with letters not shown in this catalogue, describe the mill and tell us the letter and we will send correct list covering parts.