

# PHILCO SKYCHARGER

## SKYROCKETS YOUR FARM RADIO SALES

with Amazing Dunn Patented Governing Principle and Other Exclusive Features.



**NEW HY-TOWER DEAL**  
Gives Dealer \$2.50 to \$14.00 Profit

List Price .....\$29.50  
Dealer's Price ..... 15.00  
Dealer's Profit ..... 14.50

**Special Coupon Price**

With New Radio .....\$17.50  
Dealer's Price ..... 15.00  
Dealer's Profit ..... 2.50

Where buyer purchases direct from our factory on coupon, the \$2.50 refund will be made to dealer.

All Prices  
F. O. B. Clarinda, Iowa

**NEW LO-TOWER DEAL**

Profit on Lo-Tower  
from \$1.50 to \$11.00

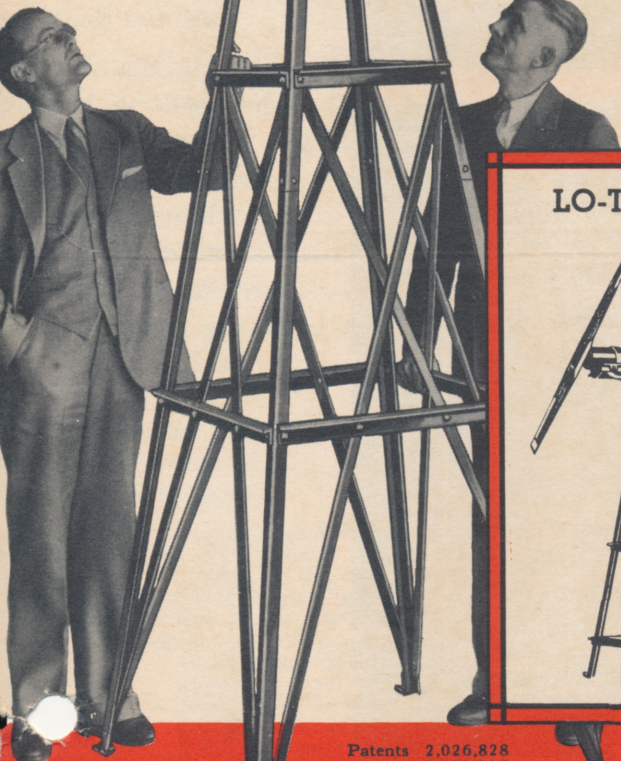
List Price .....\$24.50  
Dealer's Price ..... 13.50  
Dealer's Profit ..... 11.00

**Special Coupon Price**

With New Radio .....\$15.00  
Dealer's Price ..... 13.50  
Dealer's Profit ..... 1.50

Where buyer purchases direct from our factory on coupon, the \$1.50 refund will be made to dealer.

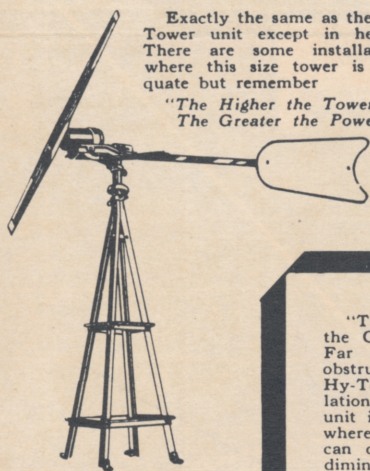
Prices good in U. S. A. only



**LO-TOWER MAKES 6-FOOT INSTALLATION**

Exactly the same as the Hy-Tower unit except in height. There are some installations where this size tower is adequate but remember

*"The Higher the Tower,  
The Greater the Power"*



The Dunn Governing Principle permits the propeller to tilt back and "slip the excess wind" in high velocities.

The Dunn Governing Principle thus controls the propeller speed and prevents propeller breakage in severe winds.

The Dunn Governing Principle reduces the pressure on the entire unit to a maximum of 36 pounds, eliminating damaging strains and vibration.

The Dunn Governing Principle requires only 3 simple working parts as compared with 25 to 70 parts in other chargers.

The Dunn Governing Principle, by holding speed of the propeller uniform in high winds, prevents generator burn-outs and excessive end thrust and bearing wear.

The Dunn Governing Principle requires no weights on the propeller. Keeping it light permits it to start and run in the slightest breeze. This is important to take advantage of the many low wind hours.

The Dunn Governing Principle permits use of a simple throwout collar that takes the propeller out of the wind, yet permits generator to "free wheel" in case of a short circuit. *"No burnt out generators."*

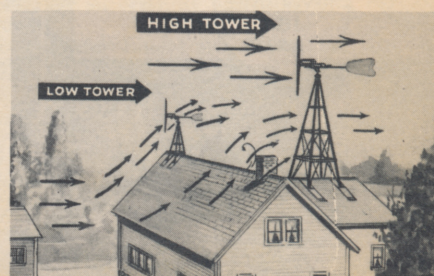
The Dunn Governing Principle, unique in its simplicity and matchless in its performance—makes the Hy-Tower truly the

*World's Finest Wind-Driven Battery Charger*

**HY-TOWER ADVANTAGES**

*"The Higher the Tower the Greater the Power."*  
Far up above ordinary obstructions, the sturdy Hy-Tower 10-foot installation puts the charging unit in full wind stream, where the slightest breeze can operate it with undiminished power.

It's above the broken wind stream deflected by the roof of the building and trees, right out in the open, exposed to the full force of the wind where it can operate with 100% efficiency.



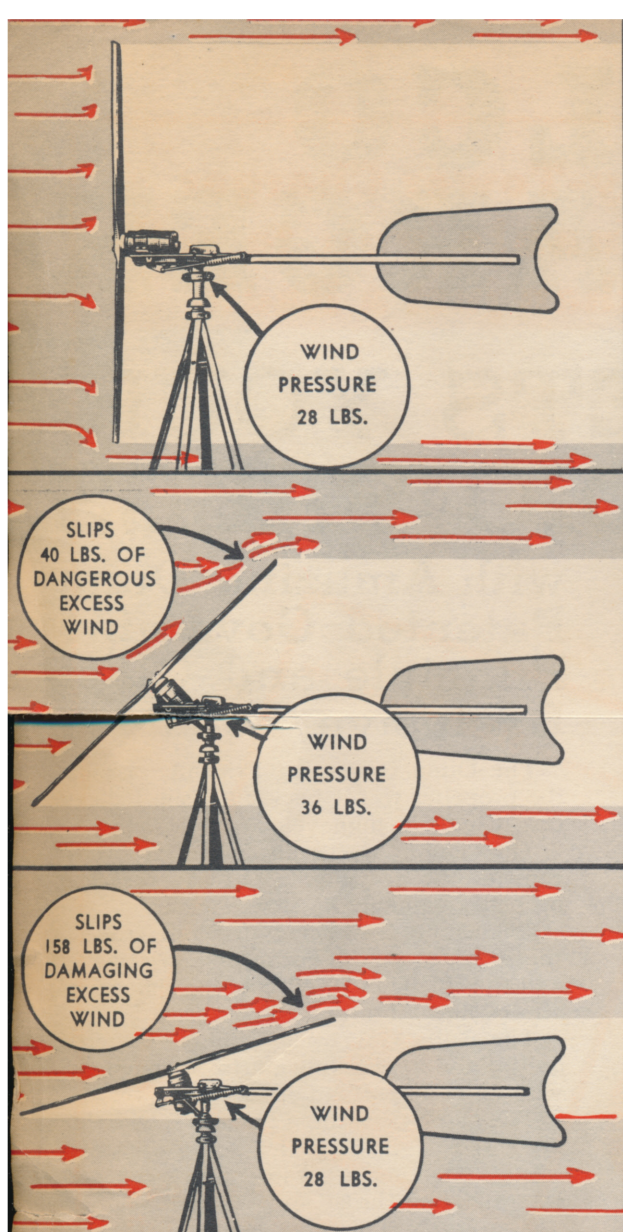
Patents 2,026,828  
2,052,816  
2,048,732  
Others Pending

MANUFACTURED BY

**PARRIS-DUNN CORPORATION, Clarinda, Iowa, U. S. A.**

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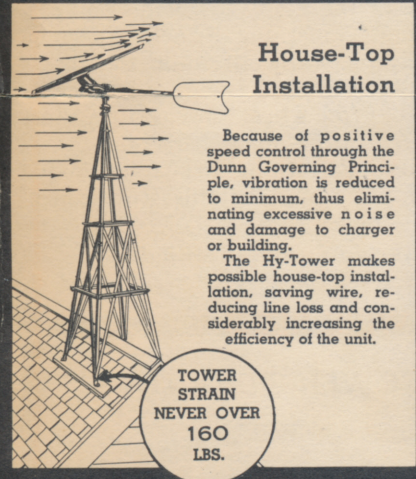




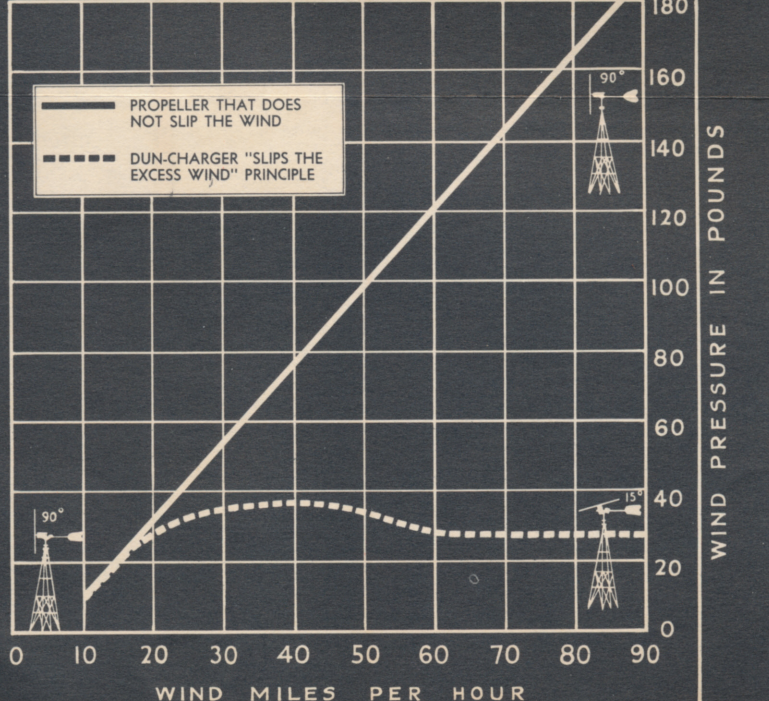
**Describing the Famous, Most-talked-of, Patented Dunn Governing Principle**

<b>20 MILE HOUR WIND</b>	
Propeller angle	90°
Propeller area exposed	100%
This is ample speed to generate 16 to 20 amp. (maximum) Generator output. 100%	
Wind pressure on structure	28 lbs.
MINIMUM VIBRATION—IDEAL FOR HOUSE TOP INSTALLATION	
<b>40 MILE HOUR WIND</b>	
Propeller Angle	45°
Propeller (Approximate Area Exposed)	50%
R.P.M. for maximum efficiency. Generator speed remains uniform; output	100%
Pressure on structure	36 lbs.
NO PROPELLER BREAKAGE—NO BURNT-OUT GENERATOR—STILL MINIMUM OF VIBRATION—SAFE	
<b>90 MILE HOUR WIND</b>	
Propeller angle	15°
Propeller (Approximate Area Exposed)	16½%
R.P.M. for maximum efficiency. Generator speed remains uniform; output	100%
Wind pressure on structure	28 lbs.
PROPELLER SAFE—GENERATOR SAFE—VIBRATION STILL KEPT AT MINIMUM	

**Dunn's Governing "Slip The Excess Wind" Principle Eliminates Damaging Vibration**



The chart to the right shows how the Dunn Governing Principle permits the propeller to tilt back from a 90° to a 15° angle, thus "slipping the excess wind" and limiting tower strain to 36 lbs. If our propeller were to remain at a 90° angle, the wind pressure would build up to more than 180 lbs. at the tower head, causing a vertical strain of 850 lbs. on two legs and a downward pressure of 850 lbs. on the other two legs.



Developed by George Manakowski, E. E., University of Minnesota, pioneer wind electric engineer. Actual tests and verifications conducted at Ames, Iowa, by graduate Mechanical Engineers in collaboration with Parris-Dunn staff.

# The HY-TOWER CHARGER

## An Engineering Triumph! A Tremendous Success!

### The Most Efficient, Trouble-Free Wind-Driven Battery Charger You Can Buy At Any Price!

Manufactured by the Parris-Dunn Corporation and backed up by 20 years of successful Manufacturing, Designing and Engineering experience.

Thousands of Hy-Tower Chargers are now in use throughout the world, operating efficiently under every imaginable climatic condition. CAREFULLY ENGINEERED, SCIENTIFICALLY DESIGNED, with a minimum number of working parts. So universally accepted that Hy-Tower Charger Sales have doubled month after month—conclusive evidence of marvelous acceptance by radio manufacturer, dealer and customer.

#### THE FARMERS CHOICE

The Hy-Tower is unquestionably the farmers choice. He is quick to recognize the practical worth of this unit and understands the value of simplicity in design permitting the elimination of unnecessary wearing parts. Its dependability and trouble free performance make it ideal for installation in isolated districts.

The Parris-Dunn Corporation has placed a substantial profit in these chargers for the dealer. It is estimated that there will be over 1,500,000 six-volt radios sold this year and every purchaser will be a charger prospect. Order a Hy-Tower charger today and place it on the sidewalk in front of your store. You will be astonished at the number of radio prospects it will attract. Get these prospects listed and be prepared to cash in on the tremendous potential farm radio market this season.

#### Prove For Yourself the Safety, Efficiency and Accuracy of the Dunn Governing Principle.

Mount the Hy-Tower Charger Head on a fast car. Drive the car at its top speed. You will find that, at around 20 miles per hour, the governor will begin to "slip the excess wind", maintaining uniform propeller speed and charging rate regardless of the speed of the car. There will be no noticeable vibration, propeller flutter—no danger of propeller breakage or generator burn-out.

Make this same test with any other charger and be convinced of the superiority of the Dunn Governing Principle.



#### THE HY-TOWER IS SAFE TO CLIMB



#### SIDE STRAIN TEST

By careful designing our engineers have perfected the all steel Hy-Tower which is quickly and easily erected anywhere.

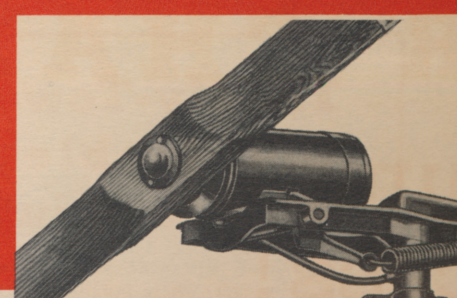
The most rigid tests have proved that the Hy-Tower easily withstands over 10 times as much weight or side stress as it will ever be subject to in the most severe windstorms.



#### STRONG, LIGHT WEIGHT, BALANCED PROPELLER

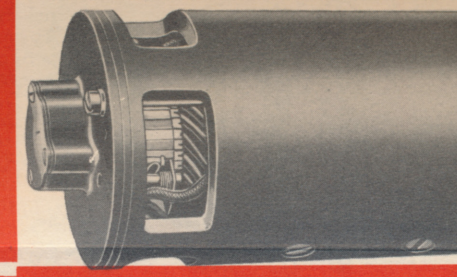
Precision machine made from light kiln dried, straight grained Douglas fir. Statically and dynamically balanced. Three coats weather proof varnish. Leading edges copper sheathed. Starting pitch and airfoil scientifically developed. Strong, full width center section.

Dunn Governing Principle relieves propeller of weighty governing devices, leaving it light and free to charge in low winds.



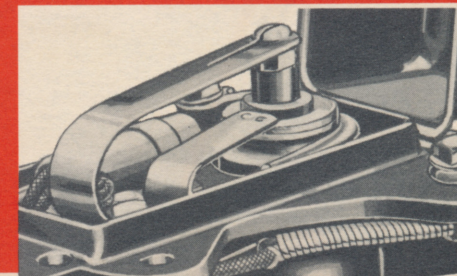
#### HEAVY-DUTY GENERATOR

The Hy-Tower Generator is completely synchronized with balanced propeller and especially constructed for wind charger use. Cuts in at about 320 R.P.M. Maximum output is 16 to 20 amperes. Bearings sealed in oil, require no further lubrication. Built to last 15 to 20 years.



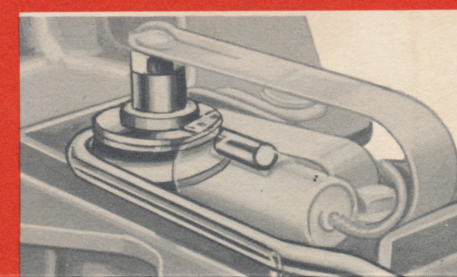
#### THE COLLECTOR RING

A simple, fool-proof collector ring that automatically goes into place when head is installed on tower. Head can be taken off and replaced without tools and without danger of damaging parts. Instantly accessible for inspection. Fully protected from the weather. Has only two moving parts made of noncorrosive phosphor bronze. A proved product that never requires attention.



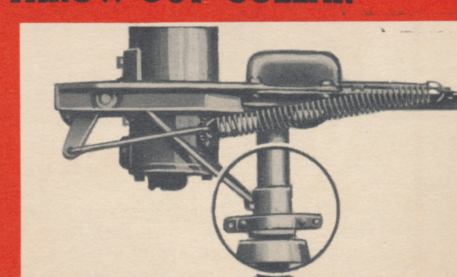
#### AUTOMATIC TURNTABLE BRAKE

This patented Hy-Tower feature makes the "slip the excess wind" principle of governing a successful engineering achievement. As the propeller starts to tilt, the turntable brake is automatically applied, holding the charger steady and positively overcoming any tendency to turn away from the wind.



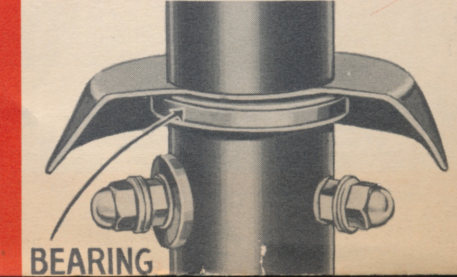
#### TROUBLE PROOF THROW-OUT COLLAR

A wire may be attached to the simple all steel throw-out collar as shown in the illustration which will permit pulling the charger out of gear regardless of wind velocities. The propeller then assumes a neutral horizontal position without strain or twisting. Makes braking devices unnecessary and allows generator and propeller to "free wheel" or motor in case of a short.



#### BALL BEARING TURNTABLE

The Hy-Tower Charger Head is mounted on a ball bearing turntable as shown in the illustration. This permits the Charger to turn freely and follow the slightest breeze thus always keeping the propeller full face into the wind, and enabling it to take full advantage of its free power.



## THE HIGHER THE TOWER, THE GREATER THE POWER



