

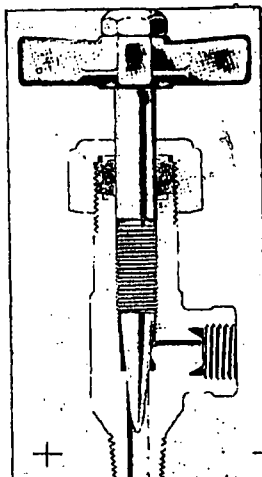
NEW EQUIPMENT CONTINUED

side. There is no interruption of coal feed, loss of pressure or reduction in steam load associated with ash discharge, which is continuous.

The *Centrafire* principle deliberately provides a deficiency of air for combustion of the fuel as it descends to, and rides over, the central link-grate section. This "gas-producer" process causes low-velocity monoxide gases, having low particle-carrying capacity, to rise above the central fire zone. Upon leaving this zone, these gases mix thoroughly with additional air for burning to carbon dioxide. High-pressure air for this purpose enters through staggered nozzles in the sidewalls, above the trajectory of incoming fuel. The turbulence required for thorough mixing is created in the atmosphere above the spreading zone—out of the region where coal is in suspension. An increased supply of metered primary air is admitted through side areas of the grate and the ash-discharge grates.

Two long-stroke slow-speed rams feed coal to the rotor. A coal-feed equalizer plate driven from the rotor oscillates across incoming fuel to assure continuous feed whether coal is wet or dry.

One constant-speed motor or turbine supplies oil pressure for all controls and drives. Eliminating all chain or other drives, this completely hydraulic system permits maintaining accurately any preset fuel-air ratio. Westinghouse Electric Corp., Box 868, Pittsburgh 30, Pa.

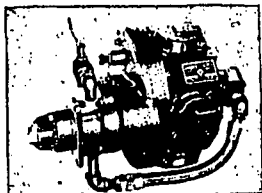


Needle Valve E337

MICROMETER NEEDLE VALVE is a modification of the company's compact forged body industrial valve design, but has 5/16-in.-40 stem threading for close adjustment and a long 10-deg included-angle tapered needle for fine metering. Standard valve is of high-strength brass, but aluminum alloy bodies can be supplied. Needle stems are machined to close tolerances in *durane*. Valve is available in 1 and 1-1/2-in. sizes with eight port combinations of male and female, pipe and tube connections. Parker Appliance Co., 17325 Euclid Ave., Cleveland 12, Ohio.

Pulley Lagging E338

APPLIED WITHOUT RIVETS, bolts or heat. *Condensite* all-purpose waterproof lagging dries within ten hours at room temperature. In addition, it is weather- and corrosion-resistant, unaffected by sulphuric acid, oxidizing agents, soaps, alcohols, etc. When dry, it is odorless, tasteless, non-toxic, and non-flammable. This pulley lagging provides a frictional surface that increases transmission efficiency and belt life, by eliminating belt slippage. It is suitable for crown, split and flat pulleys, and for use with leather, cord, wire-woven or rubber belts. Lagging is available in units consisting of 70x40-in. treated fabric with sufficient compound for application and in rolls of any width up to 42 in. It may also be supplied cut to size if pulley dimensions are given. *Condensite Engrs. Corp.*, 2015 Chancellor St., Philadelphia 3, Pa.



Engine Air Starters E336

NEW LINE of starters for gas, gasoline or diesel engines includes five sizes, developing from 3 to 15 hp on 100-psi air. High torque characteristic of piston-type motor, makes claims, suits it particularly for diesel applications involving high starting loads. Five-cylinder radial design provides uniform torque. An exclusive feature is the air-actuated starter pinion that, when air valve is open, automatically engages ring gear a split-second before starter begins to crank the engine, thus ensuring positive and safe engagement. *Gardner-Denver Co.*, Quincy, Ill.

Synchronous Motor E339

AVAILABLE IN RATINGS from 10 to 1,000 hp, this line of synchronous motors has welded-steel, box-type stator construction in addition to steel-fabricated, all-welded rotor spider assembly.

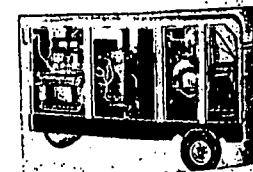
Departing from the standard 24-to-1 bearing, these motors use sleeve bearings on the pedestal type. Hence bearings are proportioned 1-to-1, the length of the bearing being equal to diameter of the shaft. This new design not only shortens overall length of the motor, but also effectively decreases bearing temperatures. *Electric Products Corp.*, 1725 Clarkstone Rd., Cleveland 12, Ohio.

Refrigeration E340

REFRIGERATING SYSTEM cools air below freezing point of water without forming frost or ice on refrigerant coils, claims manufacturer. *No-Frost* method consists of (1) spray cooler (2) refrigerant collector and concentrator (3) condenser (4) compressor. *Nisgaru Blower Co.*, 405 Lexington Ave., New York 17, N. Y.

Instrument Cabinet E341

STEEL CABINET of packaged-unit design for air-conditioning instrumentation has dual range indicator that gives dry-bulb and dewpoint temperature readings. A key switch connects indicator with multiple resistance bulb circuits for temperature measurement and *Dewcel* circuits for dewpoint measurement. Capacity of the panel is 96 circuits or two circuit connections of 48 each and an automatic off position center. *Foxboro Co.*, Foxboro, Mass.

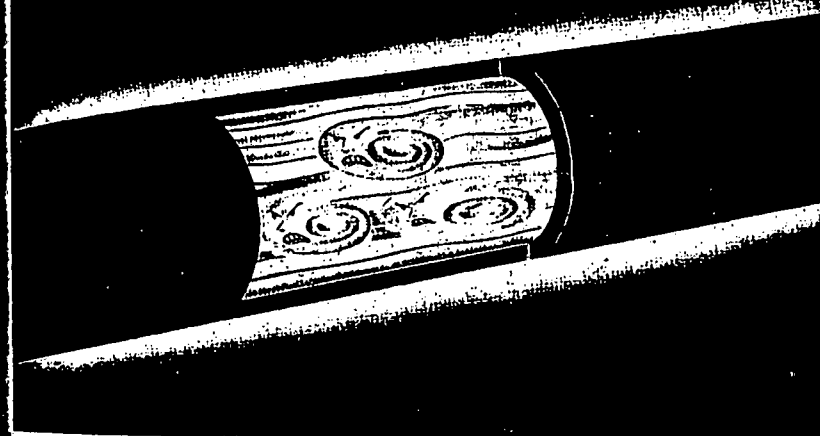


Regulated Rectifier E342

THIS FULLY REGULATED RECTIFIER, with either electronic control for extremely fast response or magnetic amplifier control for vacuum-tube elimination, is designed for use in automatic, unattended battery chargers; large, automatic planters; aircraft ground power; and as a central de-power system supply.

Standard models offer current ranges from 5 to 10,000 amp and voltage between 10 and 500 v. Voltage regulation kept to plus or minus one-half of 1% from

"Bubbles have teeth" ... REVERE



SOME years ago Revere said that "Bubbles have teeth." It is still true. Air bubbles in a condenser can eat away at the tubes quite rapidly, and become a cause of failure with consequent re-tubing. Air-entrainment, as it is called, acts in several ways, all destructive to tubes. Air contains oxygen, which directly attacks most metals, forming oxides. Carbon dioxide in solution dissolves these oxides. That is not all. Air bubbles add to the erosion effect of turbulent flow. The higher the velocity, the worse the effect, and the more swift and serious is the combination of erosion and corrosion at points of greatest disturbance. Every effort should be made therefore to keep air from being carried into the cooling water. If you are troubled by

frequent re-tubing of your condenser, get in touch with Revere; but first save a few samples from failed tubes for examination by our laboratories to determine the cause of failure. Many users of condenser tubes have found our collaboration exceedingly valuable, and we are always glad to cooperate in an effort to extend tube life.

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