

PLANT EQUIPMENT NEWS

Your information center

for new products designed to solve plant problems

Published monthly as a service to readers

Hermetically Sealed Nickel-Cadmium Battery Boasts Long Life, Little Maintenance

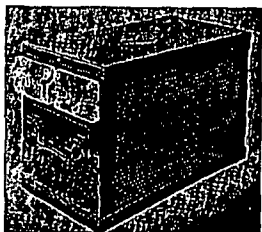
838 • New dc standby power unit, the *Voltabloc*, uses sealed nickel-cadmium batteries of the type adopted by the Navy Bureau of Aeronautics for military aircraft use. The power unit is suitable for switch-gear operation, supervisory control and emergency lighting, particularly in unattended substations. Since the batteries are sealed there is no need to add water periodically. The sealed feature also eliminates need for forced-air ventilation. This unit, a newcomer in the U. S. industrial field, was developed by the SAPT organization in France.

The "standard" 125-volt unit has a cabinet with space for five batteries plus a rectifier. Each *Voltabloc VO-35* battery has 20 cells, nominally develops 24 volts for 35 amperes-hours. Battery net weight is 88 lb, dimensions are approximately 15.4 x 9.8 x 7.9 in.

These special advantages are claimed: high charge/discharge efficiency; no gassing; low internal resistance; little variation of effective capacity as a function of discharge rate; reduced weight and size.

The plates have a steel core, slotted with a hard, porous nickel alloy. The active positive and negative materials are electroplated into pores of the nickel alloy, where they come in contact with the electrolyte.

Manufacturer states that unit is suited either for furnishing considerable power for

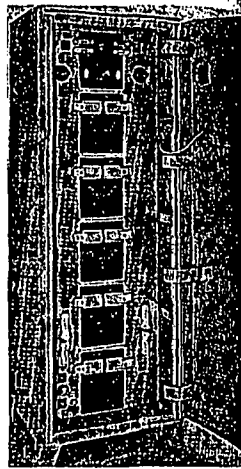


BATTERY is hermetically-sealed alkaline unit, said to need no maintenance

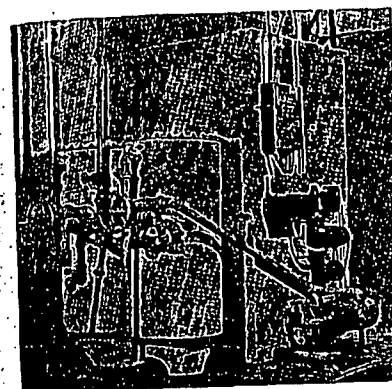
several seconds or minutes or for supplying power for one or more hours. It is also claimed that battery may be discharged at any rate without ill effects.

A completely discharged battery can be recharged in 10 hours. Overcharges are said not to be harmful, unless temperature becomes too high. Batteries can be used immediately, or put into stock for an unlimited period without special precautions, regardless of the state of charge or discharge, manufacturer claims.

Cogebel, Inc., 230 Park Ave, New York 17, N. Y.



CABINET has six compartments; top one holds rectifier, others the batteries



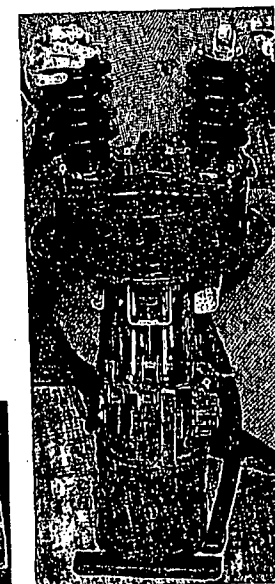
Package Water Conditioner

815 • Unit is available in eight standard sizes from 500 to 2300 gph, and flows of 12,000 to 79,200 gallons per day. Each complete conditioner consists of a precipitator with built-in clearwell, proportioning chemical feeder control, coagulant feeder tank, lime or soda ash hypochlorite feeder tank, inlet float control valve, *Neutralite* filter unit, *Carbo-Dur* purifier unit and service pump.

The units may be used to remove turbidity, color and organic matter from water supplies, to chlorinate, to remove bad tastes, odors, iron and manganese, to neutralize, soften and de-alkalize. Applications include municipalities, factories, power plants, etc. Permutti Co, 330 W 42nd St, New York 36, N.Y.

Film-Forming Amine

801 • *Magafilm* is said to reduce corrosion from oxygen and acid carbon dioxide in steam condensate systems. The amine is fed to the boiler in quantities of 2 or 3 lb per million lb of steam. It vaporizes with the steam and deposits a thin, non-wettable protective film on all metal surfaces where condensation occurs, and throughout the return system. May be obtained in both solid and liquid form. Bulletin available. Hagan Corp, Pittsburgh 30, Pa.

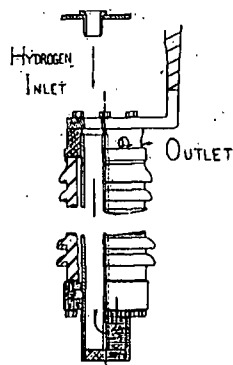


Oil Circuit-Recluser

812 • New type FR line of oil circuit reclosers has a one-way seal for moisture protection, permitting release of internal pressure but preventing moisture-laden air from entering the recloser. Units of the new line are available with a time-current characteristic that allows interchangeability with other makes.

The line includes single and three phase units, 5 to 140 amps, current rating, 2400 to 14,400 v, 125 to 2500 amps interrupting capacity. General Electric Co, Schenectady 5, N.Y.

(Continued on page 158)

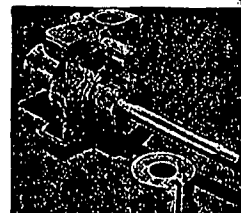


Jet-Cooled Bushing

825 • New jet-cooled terminal bushing for hydrogen-cooled steam turbine-generators increases current capacity of conventional bushings nearly 4 to 1 while maintaining a compact, mechanically sturdy conductor and bushing design, manufacturer claims.

The terminal conductor is a hollow copper stud, divided into inlet and outlet passages by a vertical partition. A jet of hydrogen is forced from the generator pressure chamber at high velocity, and directed through a hole in top of the bushing. It travels through the passages in direct contact with conductor copper and exhausts into the generator fan suction region through radial openings in the bushing cap.

Manufacturer's tests indicate that with jet cooling a 4500-amp bushing can safely carry 17,500 amps with hydrogen pressure at 30 psig. At 0.5 psig hydrogen, the bushing will carry over 10,000 amps. Alfa-Chalmers Mfg Co, General Machinery Div, Milwaukee 1, Wis.



Lubricant Pump

805 • Bronze-impeller positive-displacement pump handles oils and greases from light-bodied fluids to heavier diesel lubes and rendered fats. Maximum capacity is 10 gpm.

The units are self-priming at low temperatures, can operate at oil temperatures up to 500 F. They may be operated submerged or will pump in either direction and in any position. Eco Engineering Co, 14 New York Ave, Newark, N. J.

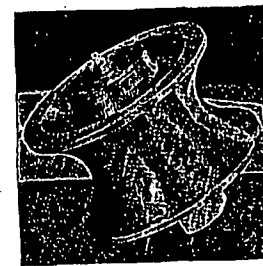


Flywheel Motor-Generator

816 • Flywheel generator sets and associated emergency transfer control insure continuity of power supply for microwave equipment on utility, pipe line and similar long-distance systems.

During normal operation, set runs on commercial power system. When there is a disturbance or outage, energy stored in the flywheel drives the generator for seven seconds. This allows time for automatically starting an emergency standby generator set and switching the microwave equipment to the emergency power source. Publication 200-FY-22.

Electric Machinery Mfg Co, Minneapolis 13, Minn.



Conveyor Belt Guides

816 • Conveyor *Guidler* serves as an idler as well as a guide. When installed at a 30-degree angle, it presents a revolving hyperbolic face to the belt edge. Impact force is thus distributed over a relatively long, flat surface, and injury to belt edges is avoided. The *Guidler* is also said to move along its axis and thus follow the vertical movements of the belt edge, controlling it while rising. Knapp Mills Inc, 23-17 Borden Ave, Long Island City 1, N.Y.