

Hi-Test

Kewanee

# FOR POWER and PROCESS STEAM

6 Sizes for 50 to 180 H.P., 125 and 150 lbs. W.P. . . . a quick steaming, all-welded portable type with firebox for refractory lining. A fuel saver.

80 Years Boilermakers

WRITE DEPT. 80-K16 for 6" scale with pipe diameter markings.

WIDE FOR OUR TYPE

Kewanee Boiler Corporation

Kewanee, Illinois

# For Long Service Life . . .

CORNING GAUGE GLASSES, SIGHT GLASSES, OIL CUP AND LUBRICATOR GLASSES *More Than Meet Requirements*

For trouble-free service, always specify Corning products when you need gauge glasses, sight glasses, oil cup and lubricator glasses. Made to exacting standards and tested for pressure and temperature shock, you can be sure that the product you select will stand up.

**GAUGE GLASSES:** Pyrex and Corning brand tubular gauge glasses and Macbeth brand flat gauge glasses provide good visibility over prolonged periods, and even under severe conditions.

**SIGHT GLASSES:** Pyrex brand sight glasses are made especially for cranes, absorption columns, reaction bottles, furnaces, pressure vessels, stills and tanks of any kind where safe, internal visibility is necessary.

**OIL CUP AND LUBRICATOR GLASSES:** Pyrex and Corning brand products give you visibility plus long life.

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STANDARD PRODUCTS DIVISION, FAIRCHILD CORP., 110 N. MICHIGAN ST., CHICAGO, ILL.

an operating unit, which may so load remaining units that blower of unit cannot be added to bus load. advance of starting this unit (3) for circuit breaker or fuses in addition to motor-starting equipment, these having an interrupting capacity equaling total plant generating capacity.

As shown in the diagram, for as plant, the motor-driven scavenging blower may be electrically connected to its generator. It will thus start automatically when the engine starts. To reduce delay, exciter field is energized by an auxiliary dc source, usually a storage battery of about 90 v. No circuit breaker or other control is required in the blower motor but a protective relay operates an alarm in case of motor load or opens the generator circuit breaker and field switch if a short occurs in the blower motor or its lead.

Experiments show that sufficient scavenging air is supplied to operate an engine on fuel and build up speed after the blower motor has reached 1/6 speed. Using pilot excitation and starting on compressed air in the normal manner, blower motor begins to turn in a little over two seconds after moving engine starting lever to "start" position, and reaches 1/6 speed in less than an additional second or two. When engine is up to speed, a manual transfer switch eliminates separate dc supply and turns the exciter to the normal arrangement. In some installations, pilot excitation has been applied automatically. ASME Paper No. 48-OGP-2.

## HYDRO POWER

Flood Control and Power in the Southwest, by Edwin Vennard, vice-president, Middle West Service Co., Chicago, Ill. For the dual purpose of providing flood control and power, Army Engineers are building a number of dams in the Southwest. All electric power not required for flood-control operation is turned over to the Department of the Interior for disposition. The Department, in turn, has established the Southwestern Power Administration, sometimes referred to as SPA, as the agency to dispose of the power.

Two plans are being discussed for the disposition of the hydroelectric power for present and future generation of these government-owned and operated electric transmission systems to be used by the Southwestern Power Administration to sell government power directly to the ultimate customer.

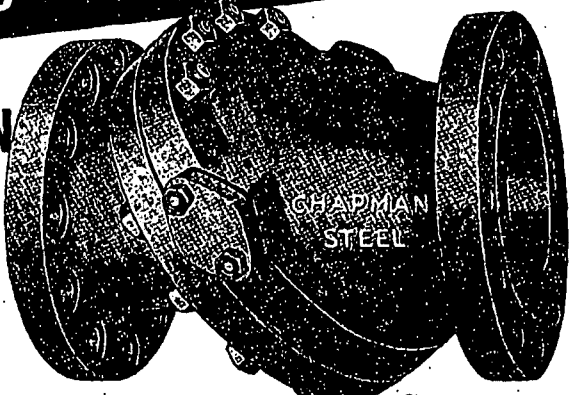
Plan B proposes that the government power shall be sold to the electric power

# Floating Disc Action Gives

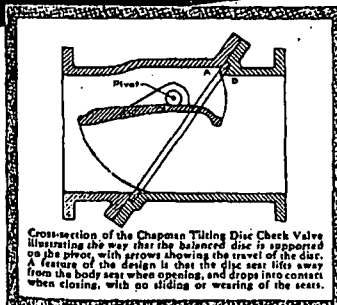
CHAPMAN



CHECK VALVES



# Quick, Quiet Closing



Unlike ordinary check valves, Chapman Tilting Disc Check Valves have a balanced hinged-pin disc which works with the stream. The disc closes quickly and quietly, with its motion cushioned by the effect of the stream against the short flap. Since there is no slamming of the disc, hammering and pipe line stresses are eliminated.

Not only does this unique valve minimize maintenance costs but it also reduces head losses 65% to 85% over conventional type check valves. When installed on pump discharge lines substantial power savings are possible. For engineering data and test results send for bulletin.

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