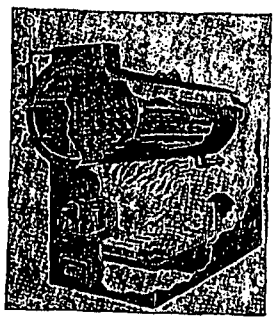
Equipment *Continued*

impact unit automatically delivers 3000 impact blows per min. Unit is instantly reversible. Equipped with 25 ft of rubber-covered cord, plug and ground wire, it operates on any 110-v, 60-cycle ac or dc circuit. The unit has an over-all length of 12½ in. and weighs 13¼ lb. It has a capacity up to ¾-in. bolts and nuts. Device is made of *Silman* steel forgings for *maximum endurance and* is equipped with precision ball and roller bearings. Illinois Gage Co, 7810 W Addison St, Chicago 34, Ill.



Package Boiler E80

AUTOMATIC, HRT PACKAGE BOILER, with full-length refractory-lined firebox shipped *completely bricked and insulated*, comes with either a gas or oil burner and grates for coal-firing to permit overnight conversion to alternate fuel.

Economist Dual-Fired unit can change from one fuel to another, states the manufacturer, by removing bricking and insulation *from top of grates when* changing to a non-solid fuel. C H Dutton Co, 680 Gibson St, Kalamazoo, Mich.

Hydraulic Crane E81

MOBILE HYDRAULIC CRANE lifts and carries up to 3 tons, has 10 ft of vertical boom travel and cable travel of 16 ft. Maximum clearance under hook is 18 ft, 6 in. Sidewise boom movement is limited to assure stability when handling maximum load. All crane movements are readily controlled by one man from the driver's seat through simple system of precision hydraulics. Half-track chassis works effectively on almost any kind of terrain from factory floor to rutted mud. It operates at speeds up to 40 mph. In addition to lifting and carrying, the unit is equipped to do towing and pushing operations. *Day-Smith Hydraulic* Crane Corp, Camp Hill, Pa.



Steam Trap E82

CUP-JU STEAM TRAP may be suspended in a horizontal run of pipe without other support. Screwed inlet and outlet connections are furnished in sizes ½ and ¾ in. Trap will handle up to 2000 lb of condensate per hr *on continuous discharge. At 60 psi* the rating is 960 lb per hr. Valves are accessible and may be changed for various pressures without other adjustment. Valves and seats are interchangeable in the full range of trap sizes within a common pressure range. Maximum pressure for the [illegible] is 125 psi. Body of the trap may be bolted and removed without disturbing pipe connections. Wright-Austin Co, 81[illegible] W Woodbridge St, Detroit 26, Mich.

Air Circuit Breaker

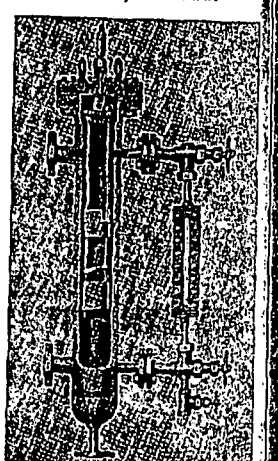
DESIGNED FOR low-voltage circuits, this circuit breaker is available in two current ratings, at 600 v and below. *AK*-1-15 is rated 15 to 225 amp, and *AK*-1-25 is rated 600 amp, with 15,000- and 25,000-amp interrupting ratings, respectively.

Features of the breaker include improved arc interruption, accessories readily attached in the field, compact, sealed-in overload trips, short time rating equal to interrupting rating, and an arcing time less than one cycle. Interchangeable dual magnetic trips have accurate sealed-in liquid displacement time-delay devices using silicone fluid. Because of accuracy of trip units the breaker is suitable for selective tripping. General Electric Co, Schenectady 5, New York.

Capacitor Motor

CSI CAPACITOR-START, fractional-horsepower motors have triple-seal windings and high starting torque characteristics. Rotor is all-welded pure-copper-bar construction. Motor is of splashproof design with sturdy

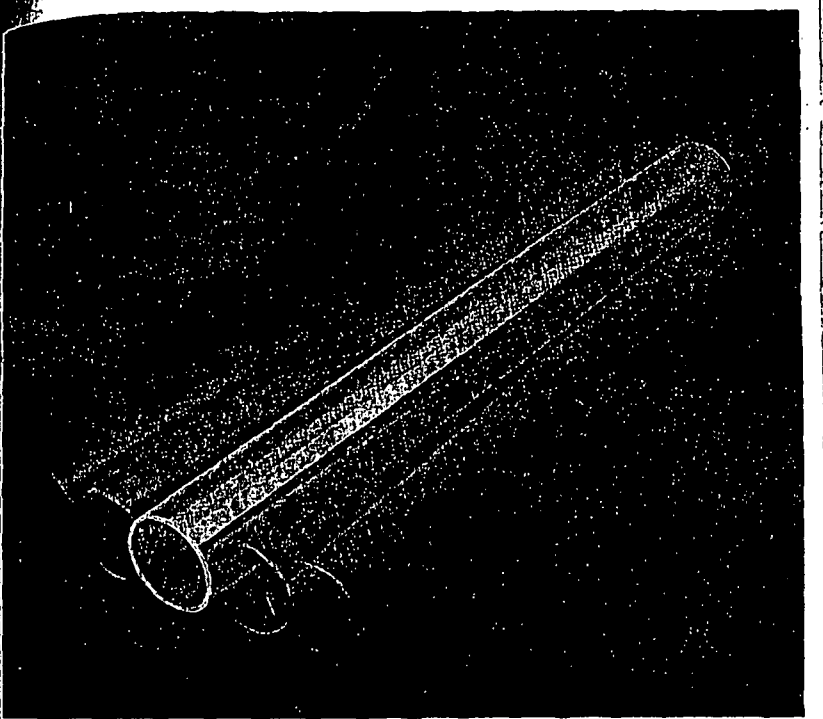
You Can't Blow Your Low-Water Whistle Upside Down!



We tried it and we know. Back last fall, we sent a cut showing a water column to the *print shop with* careful instructions as to which side was "up." Knowing the ways of makeup men with cuts that look nearly as good one way as another, a silent prayer went with the instructions. To no avail, because the *inevitable happened* and the November issue carried the picture with the water whistle blowing down. Still game, we tried again in the Mid-December review of new equipment. The score—no hits, no runs, *two* errors. Don't ask how our eagle-eyed proofreaders missed it—maybe they liked the way it looked, "wrong end to," or maybe they're saboteurs.

Slightly *punch-drunk by this* time, we're making one last effort. Ladies and gents, if we haven't been crossed up again the cut at the right shows the water column in the generally accepted position—the one in which the whistle blows instead of *acting as a drain cock. This column*, the right-side-up one, is made by Jerguson Gage & Valve Co, long-suffering and patient gentlemen!

Use convenient reply cards on page 176a to secure additional information on these new equipment items. Please be sure to identify your request with the new-equipment key letter, *E*, and number, as shown on the items above.



REVERE detects *VIBRATION* at a distance

DO you know that vibration can be present in the tubes of a condenser, though not perceptible in the shell? Putting the palm of your hand on a condenser is not a good test for destructive vibration. The best test is one carried out in the Revere Research Laboratory in Rome, N. Y., which makes a microscopic examination of the metal as a part of its work in determining causes of tube failure. If vibration contributed to short life, this examination will show *it. Vibration accelerates corrosion in* several ways. The alternating stresses in time produce cracks across the grain of the metal, weakening it and giving corrosive fluids more points to attack. Vibration also breaks or disrupts or disturbs the thin film on the surface of the metal that protects it and helps reduce the rate of corrosive attack. Of course vibration is but one of a number of factors influencing the service life of condenser tubes, and so when tube life is questioned we always suggest that samples from failed tubes be sent to us. We may be able to help you, as we have others, with suggestions that should materially extend the period between re-tubings.

REVERE

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