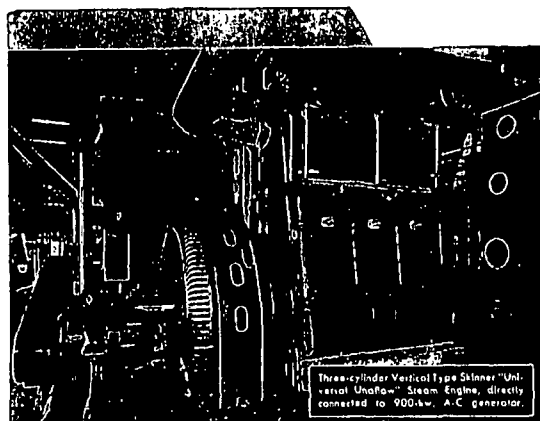




SKINNER "Universal Unaflo" STEAM ENGINE

Generates
**ALL THE POWER THEY NEED ...
AND IT'S A BY-PRODUCT ...**

in this Bleachery and Dye Works

At the Great Falls Bleachery & Dye Works, Inc., Somersworth, N.H., production of steam for low-pressure processing is a necessity, and is one of the large operating costs.

Thanks to the economy of the Skinner "Universal Unaflo" Steam Engine, their electric power, instead of being a large operating cost, is obtained as a by-product of the bleaching and dyeing operations—and at practically no cost.

In spite of variation in power and steam requirements, the heat balance is sufficiently close so that exhaust steam is rarely wasted to atmosphere, and the engine generates all the power requirements of the mill.

The savings made to date through the installation of the Skinner Engine-generator unit indicate that the cost will be returned to the owners within three to four years. Write for case studies of what has been accomplished in industries similar to yours.

"Universal Unaflo" Steam Engines are built in horizontal types from 75 to 1200 hp.; in vertical types from 300 to 3000 hp., and Skinner Marine Unaflo Steam Engines in capacities from 400 to 6000 hp.

For Over 80 Years, Doing One Thing Well—Building Steam Engines
SKINNER ENGINE COMPANY, ERIE, PA.

More TECHNICAL BRIEFS

ers, mill engines, various types of operated mechanical equipment miscellaneous heating and process The authors discuss in detail some the more difficult steel mill power problems. *ASME paper, No. 52-F-23.*

Miscellaneous

The Development of Gas Turbine trols. By G F Drake, Woodward Governor Co.

This paper gives a brief history outline of the activities of the Woodward Governor Co in gas turbine trols development, primarily those trols intended for aircraft propeller turbines.

In 1943 the Air Material Command who knew of Woodward's background as speed governor manufacturer through their work with variable propeller governors, asked them to consider a highly secret problem.

When, after a time, it was admitted that the hypothetical engine was actually a gas turbine, Woodward didn't know what was required except that speed control was important. They decided to start with this.

The engine limitations were learned and new requirements set at a rate that constantly made the current production model obsolete.

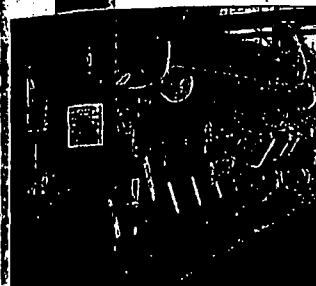
One thing soon became clear: in order to get the most out of this new engine it should operate just below the limit where it would disintegrate and at temperature at which it would not droop. With speed and temperature as critical factors, it seemed logical to control them directly if at all possible. Stable steady-state speed control had already been accomplished, and for simple turbo-jet without afterburner variable tail area satisfactory steady-state temperatures automatically accompanied satisfactory steady-state speed.

Speed droop was unwanted, however. It required operation at less than maximum allowable speed to supply the fuel needed at low altitudes, and "drooping" at best gave an approximation of isochronous or constant speed operation. So it was decided to adopt a governor that is inherently isochronous. The author describes how the solution of each problem brought on a new *ASME paper, No. 52-F-23.*

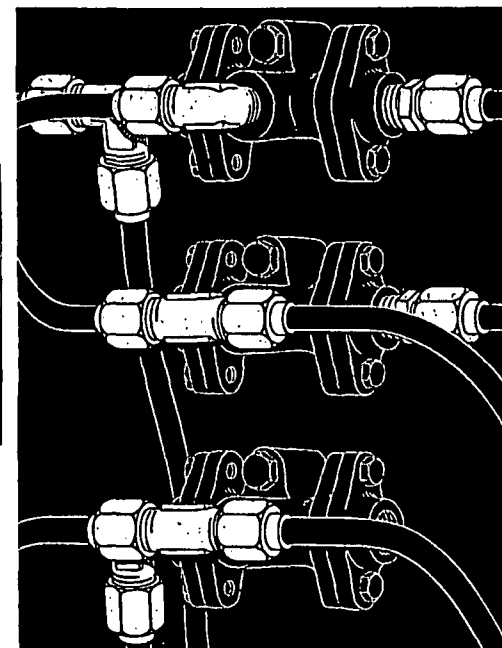
Directions for ordering papers on p 118

General Electric Co. will install, for 1953 service, four gas-turbine plants, the Connecticut Electric Light & Power. These plants are the first turbine units to go into service in Connecticut.

ON DIESEL ENGINES



This diesel engine manufactured by The National Supply Company, Engine Division, Springfield, is equipped with Parker Triple-Lok Fittings.



Tube it up...Forget it...WITH PARKER

TROUBLE-FREE TRIPLE-LOK FITTINGS

Diesel service is rugged. Constant vibration puts a severe strain on all engine parts, including fittings connecting fluid handling lines. Yet no leak, however small, can be tolerated.

That's why so many Diesel engine manufacturers rely on Parker Triple-Lok Fittings—the fitting that meets specifications of the A.S.M.E. Code for Pressure Piping, and

J.I.C. and S.A.E. standards. They are leak-proof under severest conditions of vibration, elevated temperatures, high pressures and repeated assembly.

So tube it up and forget it... with Parker Triple-Lok Fittings. Ask your Parker Distributor for Tube Fitting Catalog 4300, or write The PARKER Appliance Company, 17325 Euclid Ave., Cleveland 12, O.

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