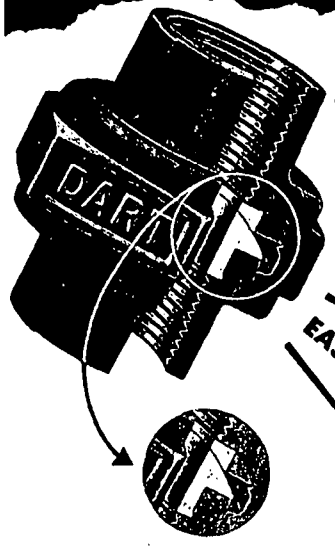
...with DARTS you get a Union that's



DROP-TIGHT

ECONOMICAL

STURDILY BUILT

EASILY INSTALLED

Their two bronze seats, ground to a true ball joint, mean longer service

Dart Unions are different. Their tightness is not derived from an ordinary "jammed" joint, but from two bronze seats ground to a *true ball joint*. They close drop-tight without excessive wrench pressure and open just as easily. What's more, they can be used over and over again in different locations. Both the body and nut are made of high-test, air refined malleable iron and are practically indestructible.

Let your supplier show you Dart's unique construction.

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DART UNIONS

automatic-control equipment are ... able, depending upon the individual installation and the type of operation desired.

Q 32—What materials are used in vertical turbine-pump construction?

A—Table, p 108, shows typical ma... terials of pumps that are generally considered standard. Bronzes, stainless steels and other special materials can be furnished as required by the characteristics of the liquid to be pumped.

Turbine Maintenance
(*Continued from page 91*)

ing of the throttle valve. Whenever tripping the emergency governor either automatically or intentionally the operator should make a record of the speed at which it functioned.

If turbines are shut down frequently test the emergency governors by overspeed once each month and operate the hand trip once a week. If the unit cannot be taken off the line once a week, the trip valve may be partly closed by means of the handwheel to make sure the valve stem moves freely.

Relief valves are provided at extraction points and exhaust between the first shutoff valve and the turbine casing. At every inspection operators should test these relief valves and determine by inspection, or disassembly if necessary, that the valve will open freely. Responsibility for proper functioning rests directly on the operator, but all concerned should make a concerted and persistent effort toward preventing loss of life as well as damage to valuable equipment.

Meters and Instruments

Gages, flowmeters and thermometers are nonproductive since they do not contribute to efficiency directly. Yet they are as essential to sustained efficiency in a power plant as micrometers are to the operation of a machine shop.

Some plants have so few instruments that operation efficiency can be judged only by the amount of fuel purchased. They are so inefficient that installation of a few instruments and adoption of a good maintenance plan would probably save enough fuel cost alone to pay the salaries of all its operators.

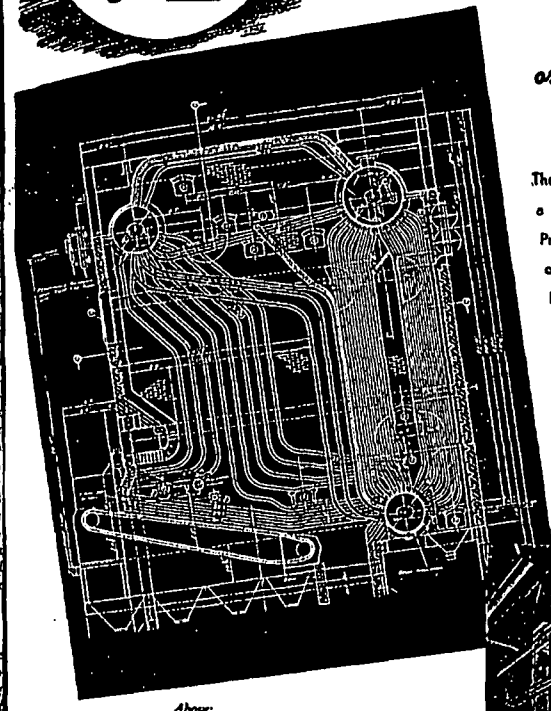
On the other hand, some industrial plants are well equipped with instruments, and have good operators and maintenance men. They operate at efficiencies approaching those of large central stations.

CLASS VL

Vogt Steam Generating Units

for **POWER**
or **PROCESSING LOADS,**
and **HEATING**

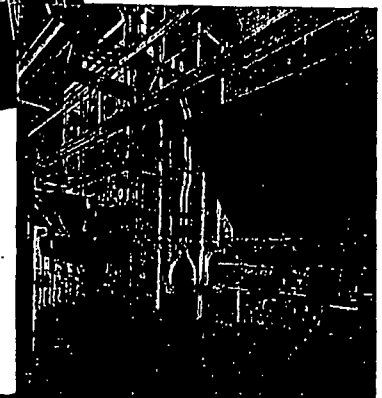
The design provides large furnace volume and a high ratio of radiant heating surface. Proper combustion is assured with any fuel or method of firing. Superheaters, air preheaters, economizers, water walls, and soot blowers can be readily incorporated. Vogt Class VL Steam generating units are giving satisfactory service in Hotels, Sugar Refineries, Steel Mills, Furniture Factories, Distilleries, Oil Refineries, and related industries. A bulletin showing typical installations will be sent upon request.



Above:
This 90,000 lbs. steam per hour unit, designed for 475 lbs. pressure, serves the Mansfield Tire & Rubber Co., Mansfield, Ohio.



Right:
Two 615 H.P. units installed in Brown-Forman Distillers Corporation, Louisville, Ky. Plant.



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