

Zallee Expansion Joints Rate...

First Choice!

In refineries, in power plants, in chemical process plants—throughout industry—Zallen Expansion Joints are rated *first choice* as the ideal medium for absorbing movement in pipe lines due to thermal changes. These features tell why more and more engineers and designers insist on Zallen when they want the best:

- *More economical than expansion bends*—the cost of insulating and installing a bend alone is frequently more than the cost of a Zalles Expansion Joint.
- *No maintenance*—having no packing they may be used for underground lines without manholes.
- *Low thrust against anchors*—require only 1/10 the force required to compress some slip type expansion joints.
- *An expansion joint for every type of service*—axial, slip type or combined axial and lateral movement.
- *Shorter face to face dimensions*—enables installation in close quarters.
- Elements may be made of stainless steels, copper, or any other metal required.
- Hydraulic method of forming assures uniform wall thickness throughout corrugations.
- As easy to install as an ordinary flanged or welding fitting.
- Traverse range from fractions of an inch up to 7 1/2" in a single unit and 15" in a double unit.
- Pressure range from vacuum to 300 lbs. in standard units. Up to 1000 lbs. in special units.
- Temperature range from sub-zero to 1600° F.

Catalog 47 contains complete information on all Zallee Expansion Joints. We would be pleased to send you a copy. Write today! Zallee Brothers, 814 Locust Street, Wilmington 99, Del.



Zaller

EXPANSION JOINTS

UNITED STATES DEPARTMENT OF JUSTICE

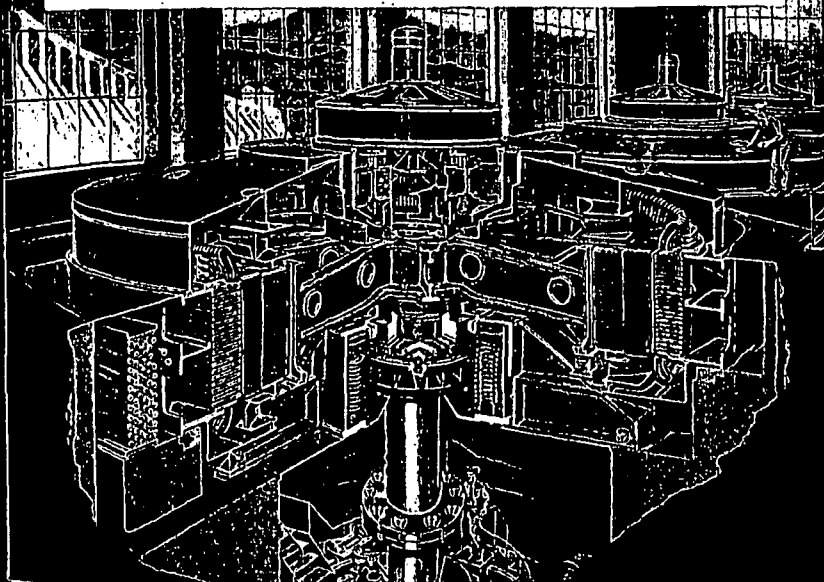
2. Let men in business attend to running the power business under the American free-enterprise system, and under government regulation. Planning will accomplish these objectives and guarantee that the public will realize all the benefits. MPC Paper.

Sediment Transportation in Streams in Relation to Power Plant Operations by M C Boyer, research engineer, Iowa Institute of Hydraulic Research, State University of Iowa. For 50 years, there have been developed intensively the transportation of goods, flood control, irrigation, increased power and many other purposes. These developments have impressed upon man the importance of sediment and its effect upon his work. He is coming to appreciate the fact that future usefulness of some of the largest reservoirs he has constructed is doomed to serious impairment because sediment will inevitably fill them. To maintain certain streams for navigation, dredging and other river-channel modifications are continually required.

Sediment interferes with the operation of steam power-plant condenser cooling systems. It deposits in the quiet waters of a forebay, in the pipes leading from the stream, or in the wells from which the cooling water is pumped. The sharp particles of quartz cut the blades and bearings of circulating pumps and the cooling system regions of high velocity. It is probable that the chemical composition of the solutes in the water has a bearing on the phenomenon of desinification.

After outlining the problems associated with sediment control, the paper discusses sediment—its nature and com-

How to make a River Run a Railroad!



¹ This drawing prepared with the cooperation of Westinghouse Electric Corporation

Here's where a lot of your electricity comes from. It's a giant hydraulic-turbine-driven generator, busy changing river power into electric power to run railroads, turn factory wheels and light cities.

See that bearing (center)! The combined weight and thrust of the rotating parts, totaling 250 tons, floats on thin films of oil between the thrust collar and the tilting shoes. If this oil fails, off might go your power, out might go your lights.

Socony-Vacuum helps assure continuous electric power production with a special Gargoyle oil for hydro-generators like this, and a Correct Lubrication program for entire power plants. The right lubricants and this complete service are available for your plant, too. Ask for it now.

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*Correct
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