ON THE JOB IN CHATTANOOGA

THE Southern Chemical Cotton Company at Chattanooga, Tenn., manufactures pure cellulose from cotton linters, a rather unpromising looking lint removed from cotton seed after ginning. The pure cellulose product goes into the manufacture of rayon, acetate yarn, cellophane, and other items with cellulose as a base.

In connection with a new boiler plant, the Elliott deaerating feed water heater, illustrated, was installed to protect the boilers against corrosion due to dissolved oxygen in the water. Winkler tests show that complete removal of oxygen is being accomplished. In addition, of course, the unit is a very efficient heater, delivering feed water to the boilers at the actual temperature of the exhaust steam entering the heater inlet.

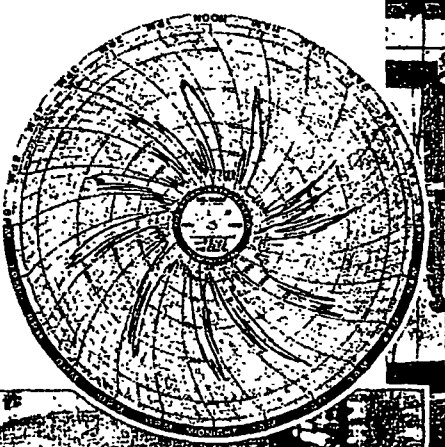
The plant load fluctuates over a wide range, imposing heavy demands upon the boiler and plant auxiliaries. The steam chart illustrated is taken from the flow meter on the boilers. The peaks are imposed by the digester loads, and the intermediate swings are due to water heating loads. The Elliott deaerating heater, of standard construction, operates smoothly over the entire load range, handling violent fluctuations noiselessly and without difficulty.

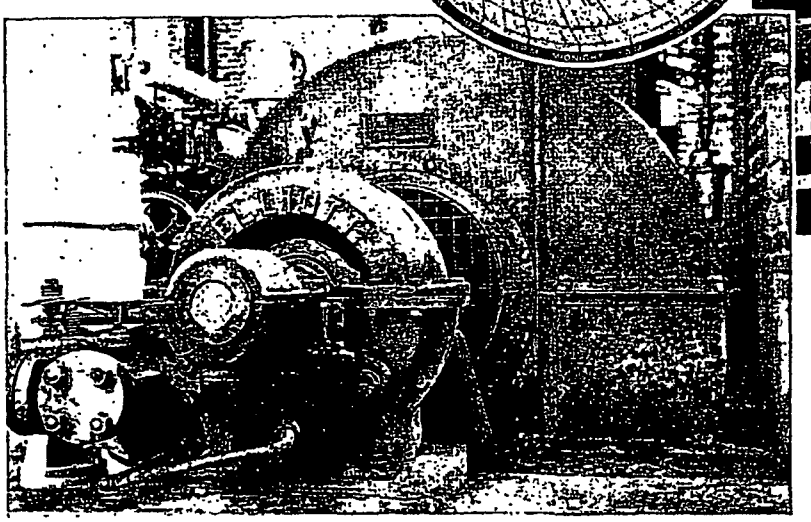
Also illustrated is an Elliott mechanical drive turbine driving the forced-draft fan. Since all machines in the boiler plant are operated by an automatic master control system, the turbine was furnished with overspeed governor only.

A Lagonda water-operated tube cleaner is used as required, the boiler tubes being curved and the cleaner specially selected to negotiate all bends.

The engineering for the plant was handled by W. E. Biggs Engineering Company of Chattanooga, Tenn., and all equipment was selected on the basis of high quality and dependability.







Above — *Elliott 35,000 - lb. per hour vertical deaerating heater which serves the new boiler plant at the Southern Chemical Cotton Company.*

Left—*Elliott 36-hp. turbine driving the forced-draft fan.*

Above Left—*Steam flow chart showing the extremely fluctuating load handled by the deaerating heater, noiselessly and without difficulty.*

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