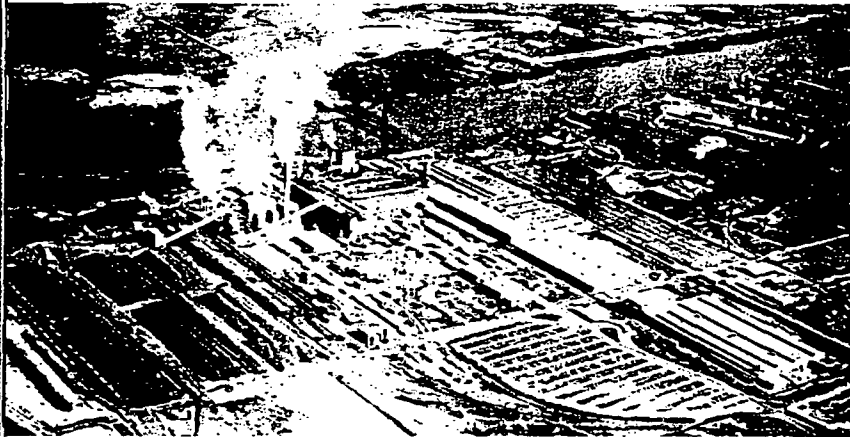
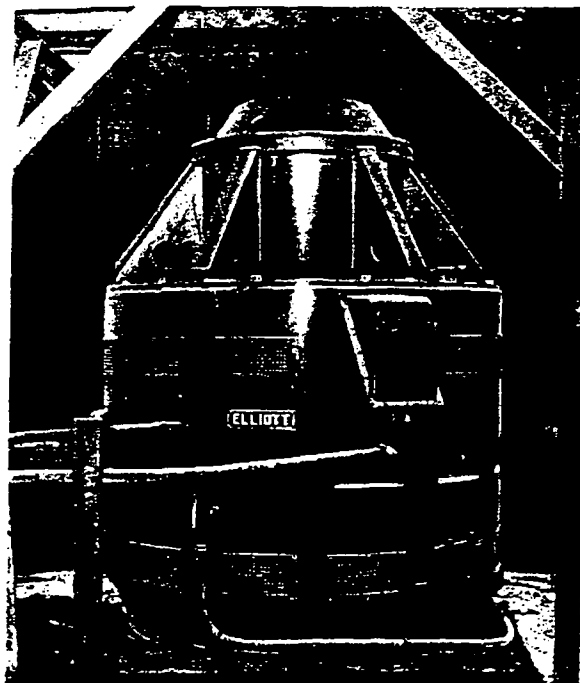


PULPWOOD FLUME SYST

by J. R. FIELDING, *Cons.*



In this aerial view of the mammoth plant of Union Bag & Paper Corporation at Savannah, Georgia, the pulpwood flume system may be seen at the extreme left.



The Elliott 200-hp. 400-rpm vertical outdoor splashproof (weather-protected) squirrel-cage induction motor which drives the 45,000-gpm pump which circulates water in the flume.

EXPANSION and modern of the plant of the Union Paper Corporation at Savannah, Georgia, has been continuous original operations began in 1899. The most recent phase of this expansion involved an increase in the nominal daily production of finished products of from 1340 to 1760 cords per day, which increase elevates the plant to undisputed rank as the largest single kraft manufacturing unit in the world. The plant employs 5400 workers and has an annual payroll of \$19,000,000.

Among recently completed construction projects is a unique wood flume system. This was designed for an eventual length of 4400 ft, the initial installation being 3200 ft. The flume forms a rectangle through the wood yard, loading aprons 10 ft long extending along two sides.

In operation, flume velocity is about 7 ft per second at 45,000 gpm. Logs do not scrape the sides at the corners, due to countercurves being set up by the water as it approaches the curve, thus rolling the wood toward the centerline.

Water for use in the flume is pumped from the seal pit on the mill site by evaporators at a rate of 2500 gpm for use on the sprays of the bark removal screen, high-pressure nozzles and make-up to the flume.

To insure continued flume operation, a settling chamber to slow down the water velocity to one foot per second, thus allowing grit, sand and sand-impregnated bark to settle out of suspension, was incorporated into the flume design. Water flows through the chains on the escalator conveyor to three separate approach channels ahead of the settling chamber. Water velocity in each channel is designed to prevent presettling. The