

pioneers decided to build their first production plant in western North Carolina, near Asheville. Several factors prompted this decision—accessibility to raw materials and markets, ideal climate, abundance of pure water, and an ample supply of capable labor. By 1940 Enka was providing jobs for nearly 3000 people, and its annual production of 23,000,000 lb was four times the first year's output.

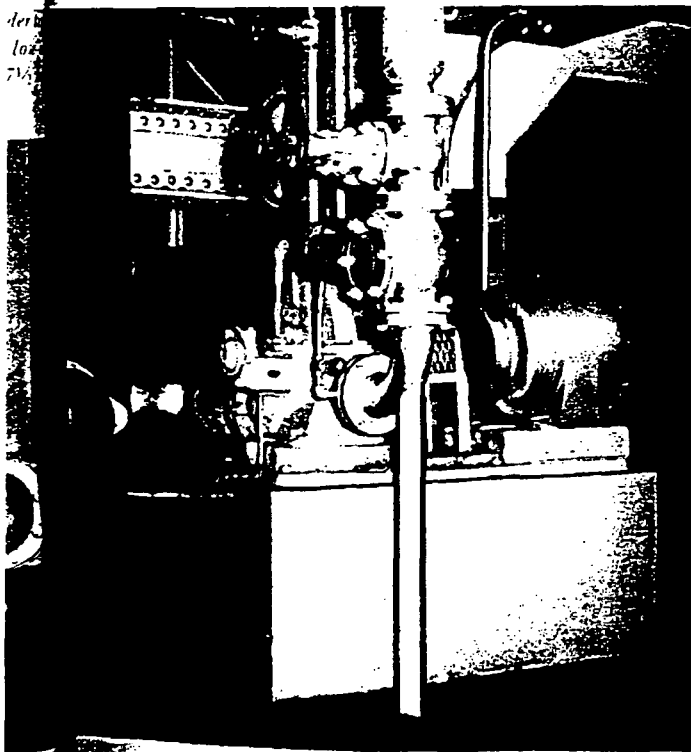
At the outbreak of World War II, Enka quickly geared itself to production of high-tenacity yarns requested by the United States Government. Enka rayon was used in airplane and truck tires, self-sealing tanks and hose, cargo parachutes, and other essential wartime items.

After the war, the company expanded even more. Since the Enka (Asheville) plant had grown to its

full capacity, plans were drawn in 1946 for a second plant eight miles south of Morristown, Tennessee, in a community called Lowland. Equipped with the industry's most modern machinery, the Lowland plant began operations early in 1948. This plant specializes in the high-tenacity yarns which are used not only in automobile tires, but in high-pressure hose, fan and conveyor belts, compressor diaphragms, and other miscellaneous items which must endure rough treatment. Superior fabrics are also woven from Enka rayon by America's foremost weaving and knitting mills.

Rayon yarn made by the viscose process consists of regenerated cellulose, derived from refined bleached spruce, pine, and hemlock wood pulp, or from cotton linters. The cellulose is delivered to the plant by the pulp

manufacturer in rectangular white sheets resembling large desk blotters. Caustic soda is used in a soaking press. Now called alkali cellulose, the material is dropped through a chute to a shredder where cellulose fibers are turned into a mass of small fluffy particles. These "white crumbs" are aged for about two days and are then placed in a churn and treated with liquid carbon disulfide. The white crumbs are thus changed to orange crumbs and the latter are dissolved in dilute caustic soda. The resultant solution is viscose, a golden-brown sticky viscous liquid with the consistency of honey or lubricating oil. After the viscose is filtered and aged, it is spun through a gold and platinum spinneret which is perforated with anywhere from 18 to 720 microscopically small holes of from two- to three-thousandths of an inch



One of three Elliott 300-hp turbines which are direct-connected to three boiler-feed pumps serving the five boilers.

