

THE  
NEW  
YEAR

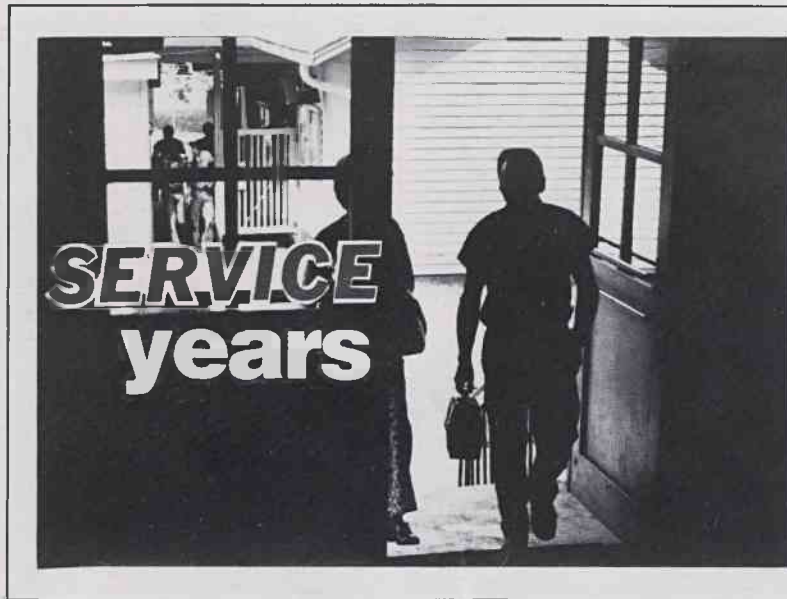
## 'More than anything else'

••Progress has been made this past year. We must make further improvements during 1982.

I ask that we all dedicate ourselves to improved product quality in this new year.

Improvement in the quality of our product will mean more to our future than anything else. Our supplying the kind of product our customers want and expect, goes a long way toward securing our steady operations and jobs.

P.R. Williams  
Factory Manager  
• Gastonia



Died • Eula Bradley (Mrs. Clayton) Wilson, 71, Dec. 13. She retired in 1974 as supervisor of factory payroll, Gastonia. Her Firestone work record of 39 years reached back to the company's beginning days in Gastonia and transition of plant property ownership/operation in 1935.

Mrs. Wilson worked for Loray

Mills and the successor company, Manville-Jenckes, stayed on when Firestone began operating the plant in May 1935. She was the last of the "transition people" to retire.

Among survivors are her husband, Clayton Wilson, and a sister, Myrtle Collette, a Firestone (Accounting) retiree.

North Carolina

In January • Central Carolina Boat Show, Greensboro (Exhibit Building), 28-31; Antiques Show & Sale, Wilmington (Hilton ballroom), 29-31.

## Converting to radials

••Firestone has a \$234-million corporate-wide capital program for fiscal 1982. Of this amount, \$91 million will be invested in the company's North American Tire operations — most of it going toward conversion of bias-ply capacity to radial production in plants at Albany, Ga., and Oklahoma City, Okla.

These projects will be in process over the next few years, and when done, will essentially complete Firestone's conversion to production of radials.

The company's capital expenditures for fiscal '81 (ended Oct. 31) was a little less than \$200 million.

The North American Tire operations '82 capital spending is going to —

- Improve Firestone's competitive position in domestic and international tire markets.

- Cut costs and increase efficiency in the company's worldwide operations.

Firestone Fibers & Textiles Company division operates under the North American Tire group.

## 'Man of the Year'

JACK  
FAILE

"This would not have been possible except for the love and devotion you have for people and your constant desire to make life today better than yesterday..." said James B. Call, commending Jack W. Faile for having received The Salvation Army "Territorial Man of the Year Award" for 1981.

The twister bobbin changer with 38 years service at Firestone/Gastonia has been a soldier of the Gastonia Corps more than 18 years. He was selected from 51 candidates to represent the NC-SC division and was chosen for the Southern Territory Award from a group of 11 divisional candidates.

COMMISSIONER A. R. Pitcher, Commander of the Southern Territory, came from Atlanta in December to present the award and plaque.

In a letter to Mr. Call at Firestone, Divisional Commander Maj. David Holz wrote: "We thought you would be interested in having this information (on

Jack and the award) concerning one of your valuable employees."

Jack takes a leading role in the work of the Gastonia SA Corps. As president of the Men's Fellowship Club, he is involved in many people-helping projects. Through the years he has been a leader in Boy Scouts, and a teacher in Sunday School.

For the past 23 years, he has taken a week vacation from Firestone to help in the local Corp's Christmas program — planning, directing and working in distribution of toys and food for needy persons.

Jack, his wife, Mary, and daughters Becky and Judy live on Rt. 2, Dallas. A son, Eddie, is a Salvation Army officer in San Antonio, Texas.

Jack's work at Firestone is part of the Faile family story at the mill. His brother, Doyle L. Faile (tape-bonder in TC Twisting), has worked at Firestone since 1947. A sister, Edith Bryson (cleaner in TC Twisting), has been here more than 5 years. Their mother, Mrs. Bessie Faile, retired from the old Spinning Department in 1964.

### GASTONIA

December 1981

#### 35 Years

#### TC Twisting

Christine Davis  
Loom Knotter

Bessie Hardin  
Respooler Operator

Isaac Hutchins  
Frame Mechanic

#### 20 Years

TC Twisting  
Jane B. Dobbins  
Section Supervisor

Jack H. Hardin  
Weaver

Mason M. Shannon  
Section Supervisor

#### 15 Years

Accounts Payable  
Kathleen Bland  
Senior Accounts-Payable  
Clerk

#### Quality Control

Edna P. Owensby  
Inspector  
(in TC Twisting)

TC Twisting  
James R. McMillan  
Supervisor

Lorene P. Rogers  
Cleaner

#### TC Weaving

James Williams  
Fabric Baler

#### 10 Years

Quality Control  
Carroll M. Cloer  
Department Manager

#### 5 Years

Payroll  
Ethel Jenkins  
Payroll Clerk

#### TC Twisting

Millie G. Aiken  
Twister Cleaner

Ernest A. Gardin  
Bean & Yarn Handler

## Wire from Danville for tires

A building project to add production space to the Firestone Danville (Ky.) Wire & Steel plant was begun in late 1981. It was seven years ago that pilot production of steel for tire reinforcement began at Danville. It was the first plant to be announced in the U.S. tire industry.

In 1973, Firestone/Gastonia was the major weaving operation for the company's steel fabric for tires. Later, the Bowling Green (Ky.) plant wove wire for a while. Production at both Gastonia and Bowling Green

was discontinued in the mid-1970s, when calendaring of wire for radials took the place of weaving steel.

Today, synthetic fabrics produced in Firestone Fibers & Textiles plants are combined with the steel, such as produced at Danville, in building steel-belted radial tires.

Kentucky • January events: Fleamarkets at Louisville (fairgrounds), 29-30; Lexington (Lexington Center), 22-24.

## World's first engineered fiber copied the silkworm

Fibers existing in natural form: Flax, wool, straw, bark, grasses, cotton, silk, and rushes. From ancient times these were the main stuff of textiles. Some of these natural materials — notably silk, cotton and wool — are still major fibers in world use.

A revolutionary development in the long story of textiles came in the late 1800s, when a process for making "artificial silk" was developed in France.

Watching the silkworm at work led some scientists and experimenters to copy the basic principle of the natural process. So, they came up with a "miracle mix" that led to a "wonder cloth" and all sorts of other products.

COPYING the silkworm at work was possible with the spinneret, basic mechanical means of forming all fibers chemically-produced. The first "artificial silk" was made in France in 1891. Count Hilare De Chardonnet led research that produced it.

The material was derived from cellulose, a carbohydrate which is the chief component of the cell walls of plants. The first raw form was ground-up hemlock pine and



DeChardonnet in France led in "copying the silkworm."

spruce, to which was added some cotton. The mix was cooked in chemicals until it had the look and consistency of honey or syrup.

It was carried in pipes and forced

out through minute holes in metal thimble-like cups called spinnerets. The developers noticed that the air did not quick-dry the thin fibers, as it does when the worm spins silk.

Further experiments led to a chemical bath that successfully hardened the fibers. Still, it took years more to develop ways to produce quality fiber and yarn in imitation of the silkworm.

On December 19, 1910, the American Viscose Company of Marcus Hook, Pa., started commercial production of "artificial silk." Fourteen years later, the industry coined the name Rayon for the product.

The world's first engineered fiber is produced from regenerated cellulose that is almost completely free of impurities. The raw material is chemically converted to rayon, just as chemicals produce all the synthetic fibers that came later.

VISCOSE and Cuprammonium, the main types of rayon, differ in

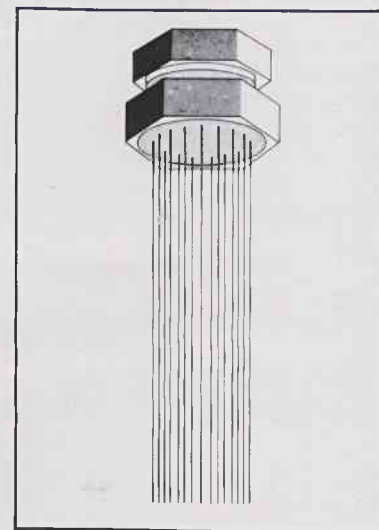
the way the cellulose is processed and regenerated. But their properties are much alike. Cuprammonium is well suited for fine denier to go into apparel and other products; viscose may be larger diameter.

Rayon used for tire reinforcement is produced from very high-purity cellulose sheets and is aged somewhat longer than rayon for other products. This gives longer molecular chains in the fiber's construction.

After it's spun, tire cord-rayon is drawn slightly to add strength, so rayon for industrial purposes — for example: Tires, hoses, and V-belts — are engineered to higher strength than are fibers for apparel.

Rayon began talking over from cotton as tire reinforcement in the mid-1930s, and was the only 'engineered' fiber until nylon came into general use in the late 1940s.

Firestone first used rayon cord in tire construction in 1933. Its volume in the total tire market today is quite small, compared with



The spinneret — one of textiles' greatest advances, along with the spinning jenny, power loom and others. Spinneret makes possible all production of 'man'-made and synthetic fibers.

the leading true synthetics such as nylon and polyester.

The division Gastonia headquarters is Firestone Fibers & Textile Company's only plant processing rayon today. Normal output of total production is about 2 percent processed into tire-cord fabric.

Firestone used rayon cord in tire construction for the first time in 1933.