

**RESEARCH PHYSICIST** Claxton shows how much material his CEPAR saves, in a test to determine the processing qualities of rubber material. What the CEPAR can do in one

operation with five grams of material formerly required a pound or more of material, and five or six separate steps. Test data is recorded on the graph.

## New Machine Aids Rubber Processing

A new machine developed in the Firestone research laboratories in Akron, Ohio makes it easier and less expensive to determine processing qualities of rubber materials.

It took three years for William E. Claxton, a Firestone research physicist, to develop the machine. He calls it the "CEPAR", an abbreviation of its ability to study the curing, extrusion, plasticity and recovery qualities of rubber materials.

The instrument has been patented, and its inventor says several outsiders have expressed interest in it. The pilot model has been invaluable to Firestone scientists during the last two years.

CEPAR is more versatile than other instruments, one test replacing five or six separate experiments on other machines. Only small samples are needed

for accurate testing, and temperatures up to 600 degrees can be employed.

The physicist said CEPAR has been used effectively to study problems such as cracking of material during the molding of tires. It also can be used to detect bad batches of rubber, thereby avoiding processing difficulties later on in the manufacturing method.

## Record 'Good' For Donaldson

Clarence W. Donaldson Jr., fixer in Twisting (synthetics), had a rating of "Good" in his Mill Maintenance course at North Carolina Vocational Textile School, for the period ending in mid-November. Mr. Donaldson received a diploma in the Belmont school's Weaving-Designing course at commencement exercises last spring.

Said the school principal, Chris E. Folk: "An employee who works a full shift in the mill and is ambitious enough to go to school to improve his

## Former Employee A Paratrooper

Pvt. Reginald E. Deal, who entered the Army after having been employed here for several months, is stationed with a paratroop outfit at Fort Bragg, N. C. His father, Archie Deal of Dallas, works in Spinning.

While at Firestone, Reginald was in Spinning also. He and Mrs. Deal, the former Irene Long of Ranlo, are parents of Reginald Jr., born in early September. Reginald's address: Co. B, 2/504; Fort Bragg, N. C.



## 25-Year People

### Service Anniversaries

Ten persons who have moved into their 26th year of employee service are presented in photographs on this page. They passed their quarter-century work mark in November, while 13 others completed records of from 5 to 20 years. The list includes:

#### Twenty Years

W. E. Deanhardt, Weaving (cotton); Isaac Trammel, Carding.

#### Fifteen Years

J. P. Hart Jr., Oscar J.

Jenkins, James M. Smith Jr., William Sanders and Jess L. Shehane, all Twisting (synthetics).

#### Ten Years

Mildred B. Hayes, Weaving (cotton); Clifford R. Stuman, Service (mechanical).

#### Five Years

Cecil Head, Twisting (synthetics); Marvin W. McCurry, Weaving (synthetics); Robert E. Froneberger, Industrial Relations (plant protection); Grace A. Spencer, Quality Control.



William York Spooling

Robbie Miller Spinning



Lois Bolding Spinning

Reid A. Deal Spinning

### AT ORANGE, TEXAS

## New Plant Nears Completion

An increase of nearly 12 per cent of Firestone's capacity for production of synthetic rubber is expected when its polymer plant at Orange, Texas goes into operation in early 1961.

An addition to the Firestone Petrochemical Center, the unit in construction will produce both Coral, a complete replacement for natural rubber; and Diene, an extender which is blended with and improves the quality of natural rubber in tire production.

Annual capacity of this new facility will be 30,000 tons of either Coral or Diene. The Company's present synthetic rubber capacity is 251,000 tons a year at plants in Akron, Ohio; Lake Charles, La.; and Pottstown, Pa.

Diene output will begin soon after the Orange unit is finish-

ed. Diene will be made from butadiene, a basic ingredient in synthetic rubber which has been produced at the Petrochemical Center since 1957.

PRODUCTION at Orange will augment synthetic operations elsewhere, and will reduce Firestone's amount of natural rubber required for many products.

The plant at Orange is designed to allow easy switch from production of one to the other of the new synthetics, as demand requires. Diene will be produced first, because of its promise for improving the quality of natural rubber in blends. Diene has been well tested in a pilot plant at Akron, and has been in production for almost a year.

Diene already is used in Firestone's premium passenger car tires and truck tires. Its resiliency and low-temperature qualities add durability to tires, improve tread wear and traction on ice and snow, and is more resistant to tread cracking.

value to himself and to his employer, is to be highly commended."

## A New Name for an Old Principle

**D**ID you ever wonder what it would be like in the United States had we not had scientific progress for more than the past 100 years? People call it automation these days. But that's just a new name for an old principle.

On this subject, someone has observed that with production equipment and meth-

ods of the 1850s, it would be impossible to meet consumer needs of the 180 million Americans today.

Then, there are these additional points to think about:

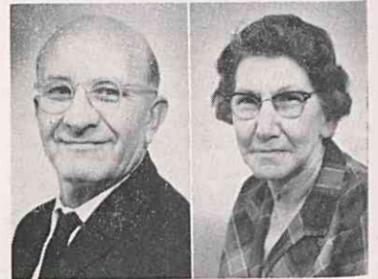
- At the production level of 110 years ago, today's America could not produce nearly enough food, clothing, housing and other essentials of life. Goods would be scarce or unobtainable. Thousands — maybe millions — of Americans would lack the necessities of existence.

- Population has grown from the 23 million of the 1850s to 180 million now. By 1980, look for it to be well into the 200 millions.

Today's production would not support these additional millions. So, to keep pace, we will need more goods and more jobs — more of everything for our progressive nation.

This leads to another point: Progress often creates additional challenges . . . problems. But failure to make production growth keep up with population increase would create problems far more serious. As the years come and go, we must have all the productivity boost that improved machinery and equipment can offer.

Industrial progress is the road to economic survival and material prosperity.



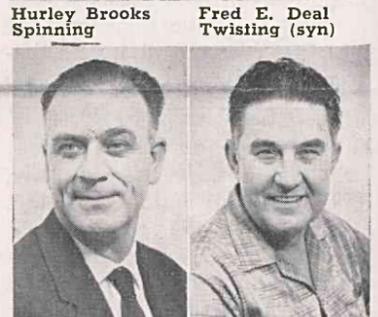
Oliver Taylor Spinning

Rosa B. Lane Weaving (syn)



Hurley Brooks Spinning

Fred E. Deal Twisting (syn)



Trenton Ginn Twisting (syn)

D. Hoyle Helms Carding

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### PLANT REPORTERS

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Weaving (synthetics)—Mary E. Johnson, Irene Odell  
Winding—Ruth Cloninger, Mayzelle Lewis

## A RULE for the ROAD

When my father taught me to drive an automobile he laid down a basic rule: "Drive as far ahead as you can see the road. Observe all of it, length and beam on each side. Watch for vehicles approaching or entering the highway."

I have found this a sound rule of life as well as of driving. One must modify his speed according to the range of his vision. There are corners to turn, grades to surmount, traffic to watch.

Dean Everest Walker