

Quality Controls. . . .

# Fiber Strength Test Applied To Cotton By Lots

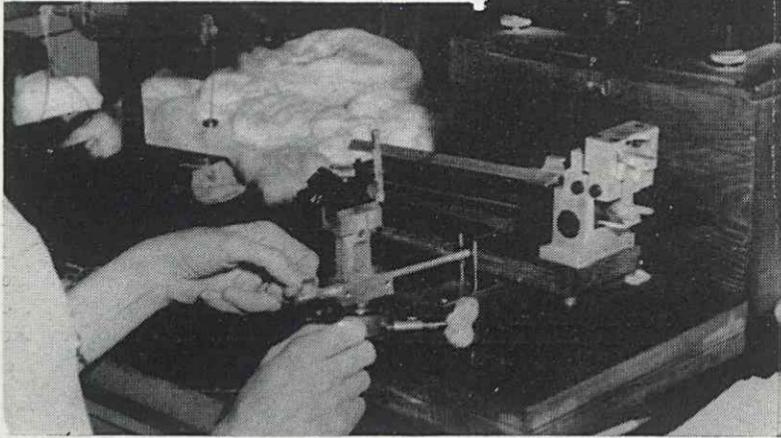
One of the ways high quality is maintained for cotton yarns and fabrics leaving this plant is by testing the fibers of cotton from which these products are made for tensile strength. Operating on the theory that the earlier potential trouble is spotted the better, this test is used to determine fiber strength of the cotton in a bale before it starts into production.

When samples, representative of 100-bale lots, are tested for fiber strength and fail to measure up to the standards set for the lot in question, those lots are rejected. Since no two bales of cotton are exactly identical in all characteristics they are always mixed by lots in the Opening Room in order that the cotton leaving that room will strike an average of the variations within the particular lot. It is thus the average fiber strength of a lot of cotton that counts as far as the fiber strength test is concerned.

The fiber strength test is conducted with the aid of the Pressley Machine, an instrument that to a high degree of accuracy can measure the tensile strength of staple fibers. Into this machine are placed "ribbons", very small and finely combed samples of cotton, which are broken by the increasing force of a weight moving down an inclined plane. The pressure exerted by the measured amount of force needed to break the fibers is recorded and then the sample is placed on a precision balance and weighed in milligrams.

The answer the operator gets from the Pressley Machine is known as the Pressley Fiber Index. This index number is as much as the Quality Control Department needs to know about fiber strength. From it they can decide at once whether a lot of cotton is to be accepted for production or rejected.

**PRESSLEY TEST**—Shown here is the best machine ever devised for testing fiber tensile strength of cotton. Called the Pressley Machine, this device provides information which is the basis of the acceptance or rejection of cotton for use at Firestone Textiles.



**THE** first step in making a Pressley Test is illustrated above: Getting the cotton sample prepared by combing out the short fibers. The second step consists of placing the tiny sample of cotton in the Pressley Clamp where the fibers are made to support a steadily increasing weight until they break. The force needed to break the fiber is noted, then the fibers are weighed on a precision balance. The object of these procedures is to arrive at a "Pressley Fiber Index" figure. From this figure the tensile strength is pounds per unit area cross-section of the fiber can be determined.

After getting the "green light" as it were at this stage the cotton is opened, forwarded to the pickers, the cards, and to drawing where a second and identical Pressley Test is conducted to determine any abnormal variations from the results obtained for the lot in question when it was first tested. If it passes at this point, as it usually does, the Pressley Test is finally passed.

And why all these precautions regarding the fiber strength of

cotton before and during the production of yarn? The only assured way to produce a yarn of high breaking strength, which is a necessity in high quality yarns of the type Firestone is producing, is to be sure that the cotton fibers that go into the yarns are uniformly high, as far as lots are concerned, in fiber breaking strength. The Pressley Test is one of the Quality Control tests that helps guarantee quality production.

## Cuff Notes

The Recreation Department announces that outdoor movies will be shown again this summer, starting early in June. These movies have proven to be quite popular with all ages in the past. The Recreation Department has already scheduled a summer movie program which, according to Recreation Director Ralph Johnson, will be entertaining to the entire family.

### Hospital Open House

Gaston Memorial Hospital will observe National Hospital Week, which begins May 10, by having Open House on Tuesday, May 12, from 2 to 4 p. m. This is the first year for a nation-wide recognition of hospitals, according to information received from Administrator Fred Hubbard of the Memorial Hospital.

Mr. Hubbard has extended to Firestone Textiles employees a cordial invitation to come by the hospital on May 12 for a personal "look-see" at its equipment and buildings.

### Returns to Work

Miss Mary Turner, spinner, has returned to work following an illness and an accident. She had recovered from pneumonia only to become involved in an automobile accident on April 18. However, she has now overcome the effects

of both and is back on her job in the Spinning Department. She also serves as a reporter for the plant newspaper.

## Camp Firestone's '53 Season Begins

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As always, the major activity at the camp will be fishing. The lake's population of crappies and bass are reckoned to be as good as last year, which for expert fishermen, at the camp, was considered a good year. All sorts of fishing supplies are available for rental or purchase at Lake James. These include motors for boats, fishing bait, fishing tackle, and artificial flies and lures of every description. Row boats which are adaptable for use with outboard motors are available free to Firestone employees.

In addition there are other popular recreational opportunities available to all Camp Firestone visitors. Most important of these are: Swimming, boating, hiking, nature lore, horseshoe pitching, softball, and for the children, swings and seesaws.

Reservations for the camp are now available to employees and families of employees. Those wishing to secure accommodations at the camp are requested to do so at the Industrial Relations Office as soon as possible.

## Reporter's Choice



**TYPICAL MOTHER**—Mrs. Julia H. Long, Weaving Department, was selected by the reporters of Firestone News as the "Typical Firestone Mother for 1953". Mrs. Long has by her devotion to her family—she has six children—and her unassuming, but charming personality earned the friendship and profound respect of all who know her. The plant newspaper is proud to honor Mrs. Long as "Typical Mother" at the time especially reserved for her and others like her: Mother's Day, May 10, 1953.

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## VOICE OF FIRESTONE

May 11—Roberta Peters	Rodgers	Orchestra & Ch.
Shall We Dance from "The King and I"	Delibes	Peters
Passepied	MacDowell	Orchestra
To a Wild Rose	Rimsky-Korsakov	Peters
Harp Solo, Lucile Lawrence	Brahe	Peters
Hymn to the Sun	Von Suppe	Orchestra
from "Le Coq d'Or"	Herbert	Peters & Chorus
I passed by Your Window		
Poet and Peasant Overture		
Romany Life		
from "The Fortune Teller"		
May 18—Brian Sullivan		
In a Hurry, from "Katinka"	Friml	Orchestra & Ch.
At Dawning	Cadman	Sullivan
La Bamba de Vera Cruz	Tucci	Orchestra
Flower Song, from "Carmen"	Bizet	Sullivan
Passing By	Purcell	Sullivan & Ch.
Overture to Gypsy Baron	Strauss	Orchestra
Magic is the Moonlight	Grover	Sullivan & Ch.
May 25—Eleanor Steber		
Paree	Padilla	Orchestra & Ch.
So in Love, from "Kiss Me Kate"	Porter	Steber
Recessional	DeKoven	Orchestra & Ch.
Elsa's Dream from "Lohengrin"	Wagner	Steber
Stardust	Carmichael	Steber
Jig and Finale from "Henry VIII Suite"	St. Saens	Orchestra
Night and Day	Porter	Steber & Ch.

### Employee-In-Service Gets Chief Clerk Job

S/Sgt. Jerry W. Turner, son of Second Hand and Mrs. W. R. Turner, has recently been assigned to Headquarters Airways Service at Andrews Air Force Base, Md. He is performing duties there as chief clerk in the communications system division of the directorate of engineering.

Until entering the Air Force in 1951, Sgt. Turner was an employee at Firestone Textiles. Prior to going to Maryland, he had been stationed in Texas, Missouri, and overseas in Kwajalein.

Sgt. Turner is married to the former Gretchel Rector, daughter of Mr. and Mrs. Gus Rector, 1645 West Fifth Avenue, Gastonia. He and Mrs. Turner are presently residing at 7600 District Heights Parkway, District Heights, Md.

### Red Cross Given \$720.50

The Employees Community Fund has made a donation of \$720.50 to the American Red Cross. This contribution, made in behalf of Firestone Textiles employees, represents that charity's share of the total community fund subscribed to by employees in the first annual Community Fund Drive held in February.

### Fishing Club Officers Elected For All Shifts

Payton Lewis, Carding Department, has been elected President of the First and Third Shifts Fishing Club. He will be assisted by Woodrow Wooten, Vice-President,

and Ralph Johnson, Secretary and Treasurer.

A. O. Ammons, second shift superintendent, will serve as President of the Second Shift Fishing Club. Serving with him are Mason Strickland, Vice-President, and Ralph Johnson, Secretary and Treasurer.