

49

HOW Firestone GUM-DIPPED TIRES ARE MADE

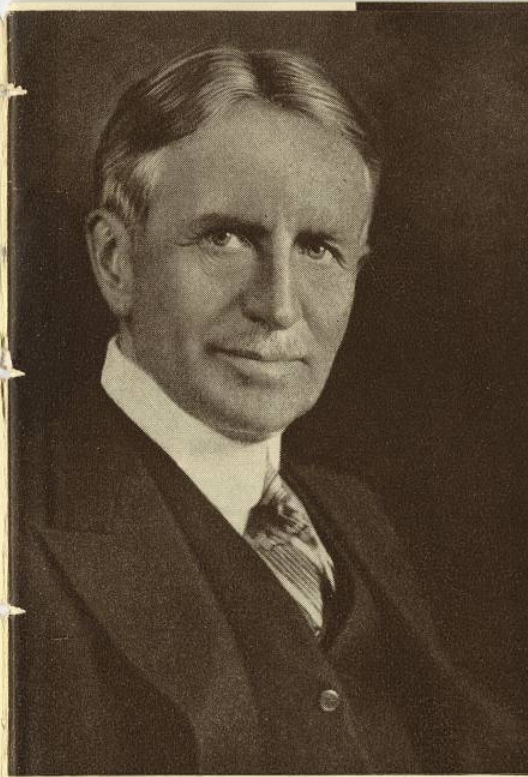


49

The
FIRESTONE
FACTORY
and
EXHIBITION
BUILDING

A
Century of Progress
CHICAGO
• 1933 •

Copyright, 1933
The Firestone Tire & Rubber Co.



THE MARK OF QUALITY

IT IS a privilege and a great pleasure to welcome you to the Firestone factory and exhibition building, and our exhibit in the Hall of Science where not only the scientific development of rubber is shown but also how rubber is produced from the jungles in South America and Firestone plantations in Liberia.

I hope that the manufacture of Firestone Gum-Dipped Tires and the exhibits of our products will be of interest to you.

Firestone tires are made from the finest materials obtainable. Extra patented processes of manufacture and the creation of the most modern and efficient machinery in the world make it possible for us to manufacture tires of higher quality and embodying Safety features not found in any other tire.

We realize that the lives of thousands of men, women, and little children are often dependent upon their tires and we accept the responsibility that into the tires we build for you is incorporated the greatest degree of strength, safety, and dependability, so that in their use you will be riding on the safest tires that human ingenuity has created.

Harvey S. Firestone

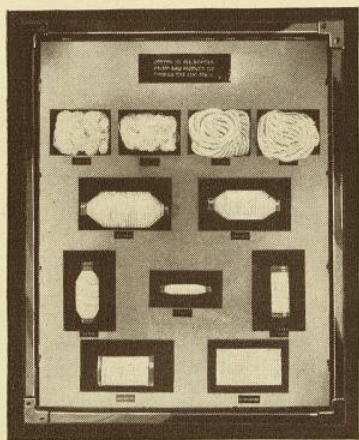
Building FIRESTONE TIRES *at* "A CENTURY of PROGRESS"

RUBBER

Rubber in its virgin form is a milky white liquid that is collected from rubber trees. It is prepared at the plantation in rubber sheets, packed in bales and shipped to Firestone factories direct from the plantations in the Far East and Firestone's own rubber plantations in Liberia, Africa. Rubber of the highest quality is used in Firestone products.



Samples of wild and plantation rubber



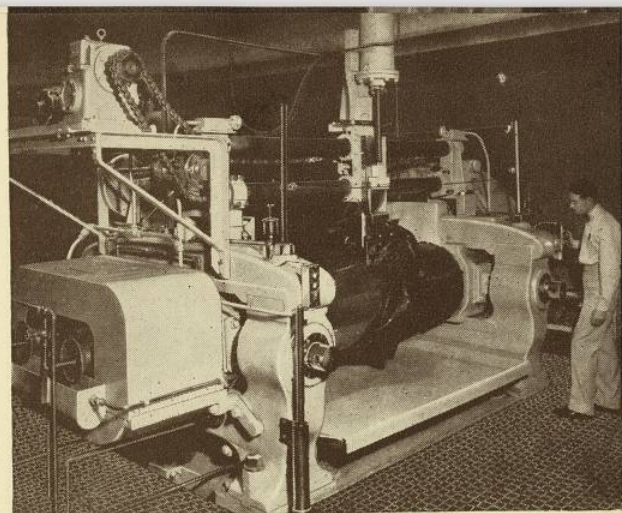
From raw cotton to cords

COTTON

Cotton is purchased in the primary markets and shipped to Firestone Cord Fabric Mills. These mills, one of which is the largest in the world, have a total yearly capacity of forty-five million pounds. The Firestone cotton warehouse at New Bedford, Massachusetts, with a storage capacity of 100,000 bales, provides a supply at all times of highest quality cotton.

MILLING

The first step in the preparation of the rubber from which the various component parts of tires are made, is the compounding or mixing of the crude rubber with pigments and chemicals. Firestone not only uses the best grades of rubber, but the finest chemicals and in the right proportions—and have recently developed a process of more completely dispersing these chemicals or pigments throughout the rubber, giving the rubber greater life and much longer wear.

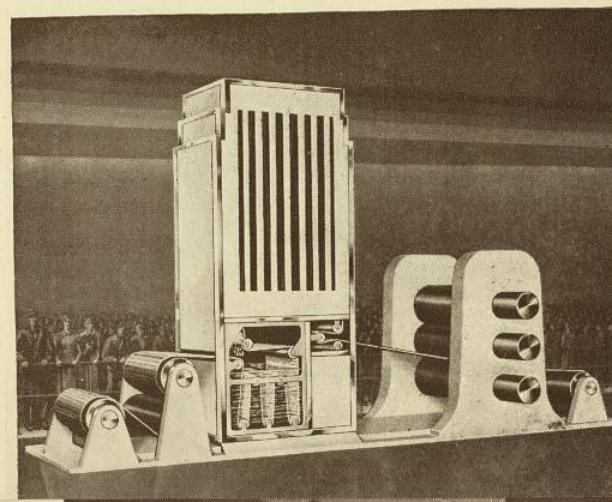


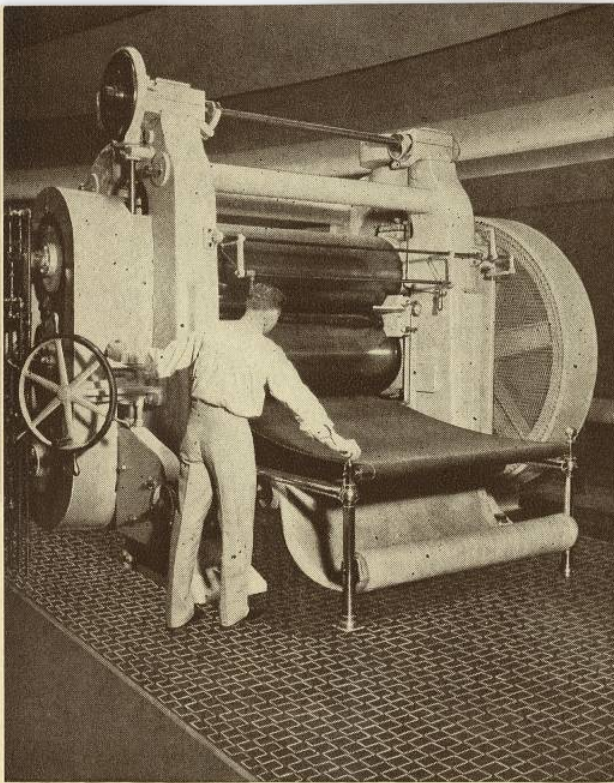
The 35-ton crude rubber mixing machine

GUM-DIPPING

This is an exclusive Firestone development and is an extra process which adds eight pounds of rubber to every 100 pounds of cord fabric, and is used only in the building of Firestone tires. By this process every cotton fiber within every cord is thoroughly saturated and surrounded with pure, live rubber, which reduces internal friction and heat, and adds greatly to the strength of the tire, increases flexing life of cords 58% and is the outstanding factor in eliminating heat, preventing blowouts and prolonging the life of the tire.

The Firestone Gum-Dipping machine—designed and built by Firestone engineers—which by a patented process saturates and coats every cotton fiber in every cord with pure rubber





Applying rubber to cords in calender

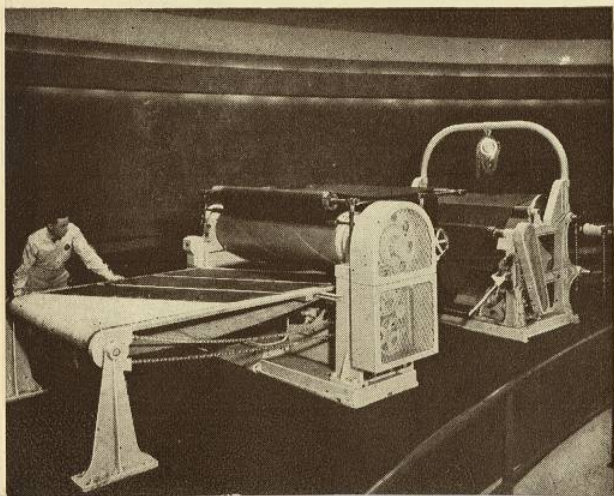
CALENDERING

After the cords are Gum-Dipped by the patented Firestone process, they are passed through a huge calendering machine, where a layer of fine, high grade rubber compound is applied on both sides of the Gum-Dipped cords.

This protects the plies against friction and increases the strength of the tire body, provides easier riding and greater strength.

PLY CUTTING

After the Gum-Dipped Cord Fabric is coated on both sides with this high grade rubber compound, it passes into the ply cutting machine and then is cut on the bias to exactly the proper width and is then ready to be made up into the body of the tire. The materials are now ready for the tire builder.

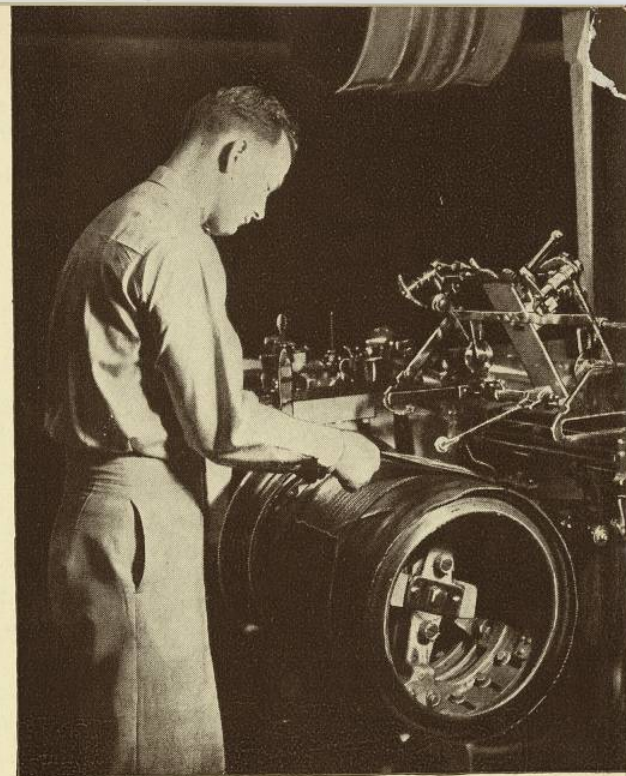


The automatic bias cutter cuts the cord at an angle of forty-five degrees so they will stretch and tension when in the tire

TIRE BUILDING

This machine, developed by Firestone, automatically feeds the rubberized Gum-Dipped cord plies to the tire builder, who assembles the plies, beads, and treads on a revolving flat drum to form the proper build-up of the tire.

Automatic means control the operation of this machine so efficiently that tires of uniform construction and quality are assured.

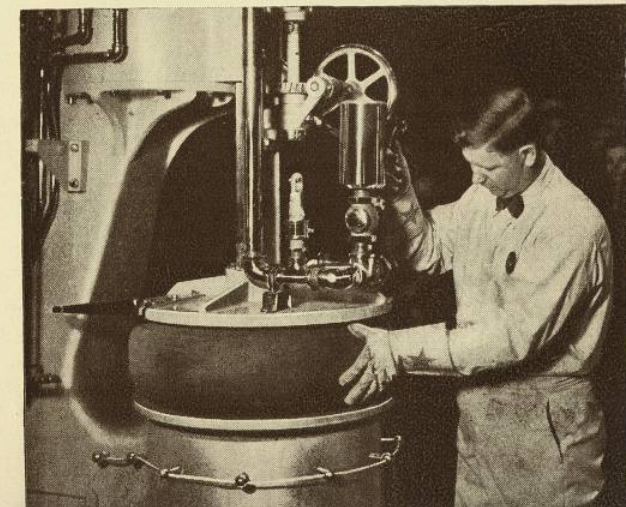


Building a tire on the drum machine

EXPANDING AND FORMING

The Gum-Dipped Cord Plies, one built upon the other, the Two Extra Gum-Dipped Cord Plies under the Tread, and the Tread Rubber, are now transferred to the expanding and forming machine. Here a rubber airbag is automatically inserted on the inside of the tire and the tire formed ready for the curing mold.

Expanding and forming the newly built tire from drum shape to the true tire shape





Vulcanizing tire in automatic mold

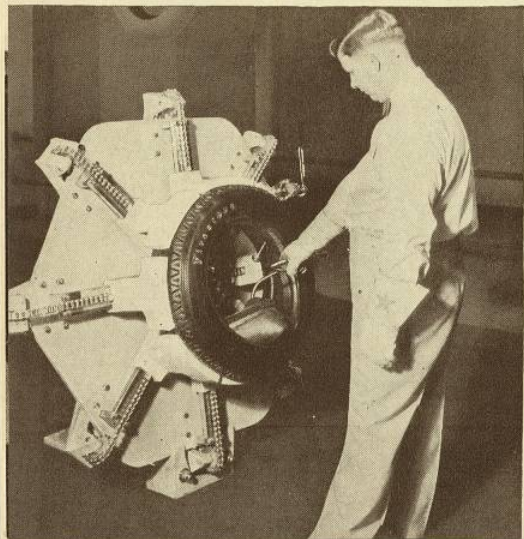
VULCANIZING

Pictured at the left is one of the many modern Firestone Steam Jacketed Molds, which automatically open and close by gleaming pistons high overhead, as thermostats assure the most accurate temperature control. Colored lights flicker to indicate the progress of the operation. Steam provides the necessary heat for the vulcanization.

As heat is applied to the rubber, vulcanization takes place due to the chemicals that have been mixed with the rubber. After the tire has

been vulcanized for a certain period of time, the heat transforms the compound into a live, tough, long-wearing rubber. At the same time tremendous pressure exerted on the airbag inside the tire forces the tread rubber out into the non-skid tread pattern of the mold and makes the scientific and efficient non-skid tread design.

AIRBAG EXTRACTING MACHINE



After the tire has been vulcanized and is taken out of the mold, it is then put into a machine, known as the tire expander, where the tire is forced open to permit the extraction of the airbag on the inside.

Extracting machine removes the airbag after tire is vulcanized

FINISHING AND INSPECTING

The tire is now put on the conveyor again and is taken off at the finishing and tire inspection machine. Here a master craftsman examines and inspects the tire for any possible imperfection, washes and polishes the tire, applies gold striping and the Mark of Quality insignia.

Thus, each Firestone tire becomes The GOLD STANDARD OF TIRE VALUES.

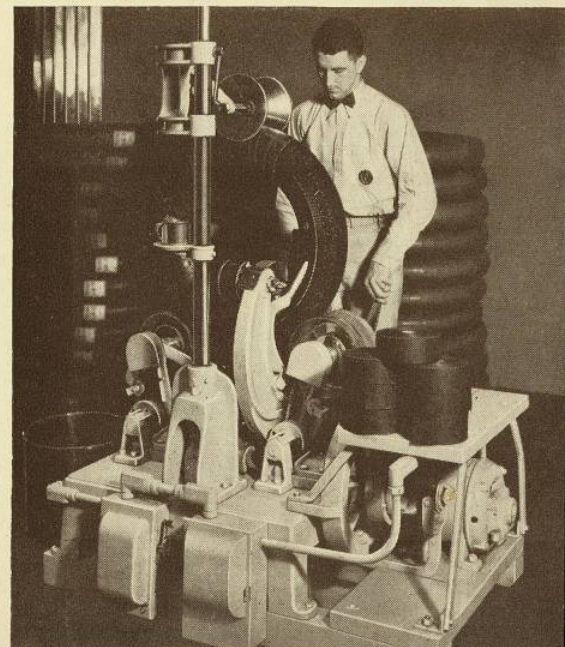


Finishing and inspecting the tire

WRAPPING AND LABELING

The tire is next sent to the wrapping machine, where the operator again carefully examines the tire, inserts it in the machine that automatically wraps it securely in paper, places upon it the proper label—and the MASTERPIECE OF TIRE CONSTRUCTION is ready for shipment.

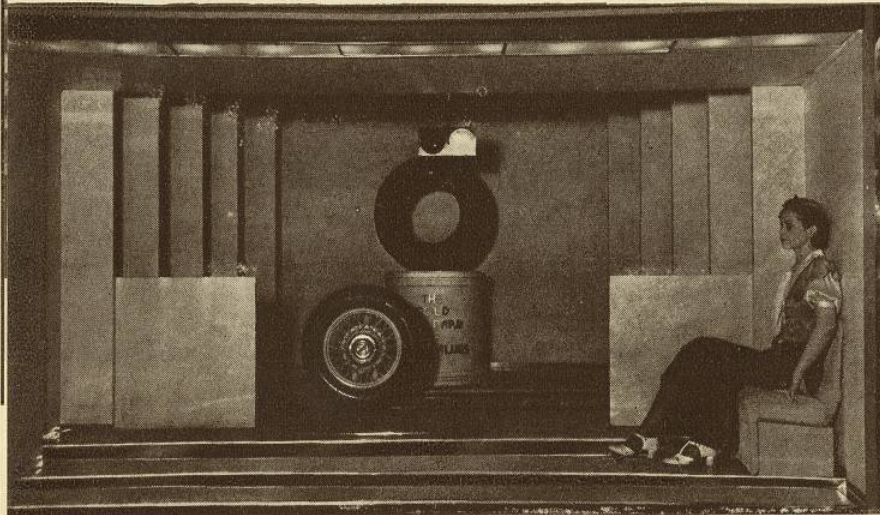
Automatic wrapping machine quickly puts a neat even paper wrapping on the tire



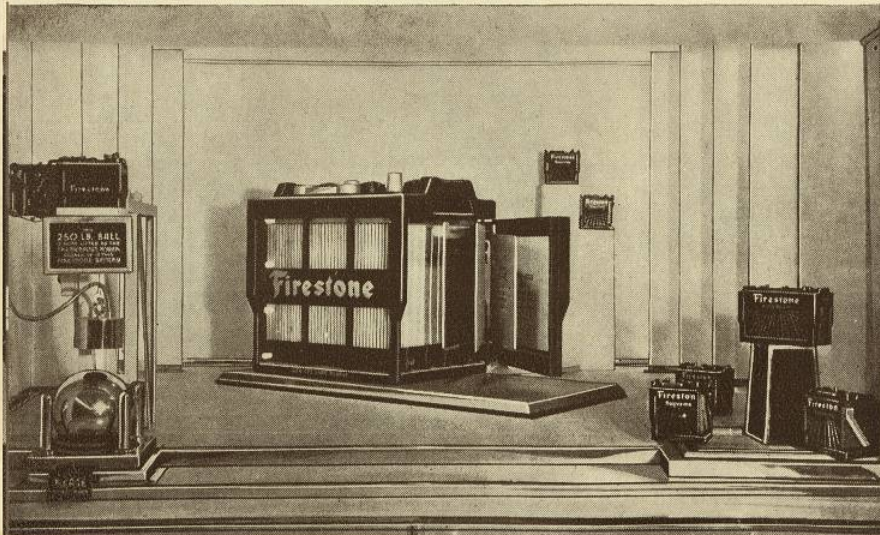
DISPLAYS IN EXHIBITION HALL

In the exhibition hall of the Firestone Factory one sees the dynamic displays illustrated on these pages, portraying the extra values built into Firestone Tires, Batteries, Spark Plugs, and Brake Lining. One also sees an exact duplicate in the form of a diorama model, of the

FIRESTONE SAFETY DEMONSTRATION



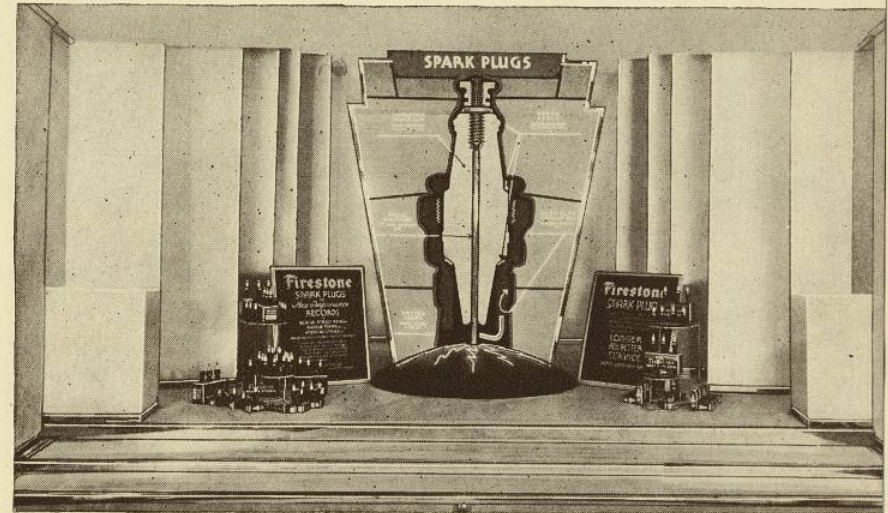
FIRESTONE BATTERY DEMONSTRATION



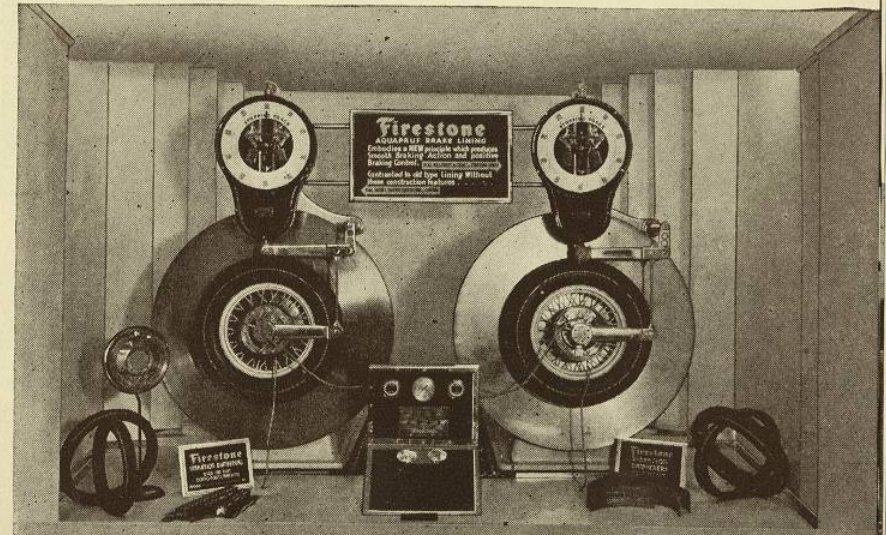
OF THE FIRESTONE FACTORY

efficient Firestone One-Stop Service Store, with enlarged views of the principal service departments, the complete line of Firestone products, and also the Firestone standardized services for car, truck and bus operators—extra values at no extra cost.

FIRESTONE SPARK PLUG DEMONSTRATION

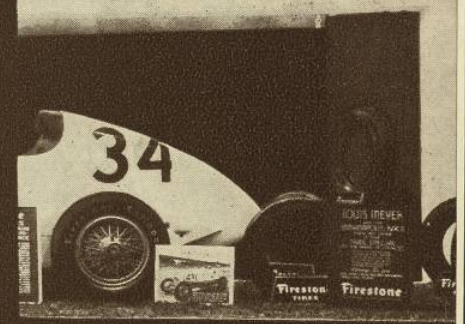
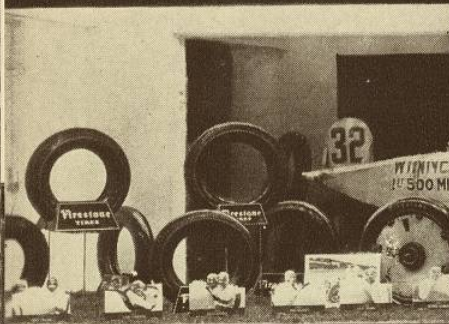


FIRESTONE BRAKE LINING DEMONSTRATION



» » OTHER DISPLAYS AT

FIRESTONE FACTORY « «



The car that won the Indianapolis Race in 1911

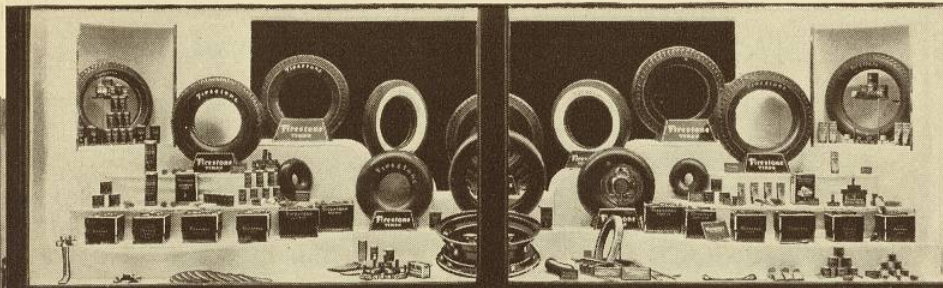
On these pages are illustrated the beautiful and instructive displays situated in five separate buildings throughout the beautiful gardens surrounding the Firestone factory and exhibition hall. Firestone Rims and Wheels, Low Pressure Tractor Tires, Truck and Bus Tires, Firestone Special Goods, Footwear, Accessories, and all products manufactured by Firestone.

Every 1933 car "in the money" was also on Firestones

In one of the large show windows is exhibited the first racing car to win the 500-mile Indianapolis Race in 1911 and equipped with Firestone Gum-Dipped Tires. Also one of the winning cars in the recent 500-mile race held May 30, 1933. For 14 consecutive years Firestone Gum-Dipped Tires have been on the winning car in this, the most gruelling test of tire dependability, the world has ever known.

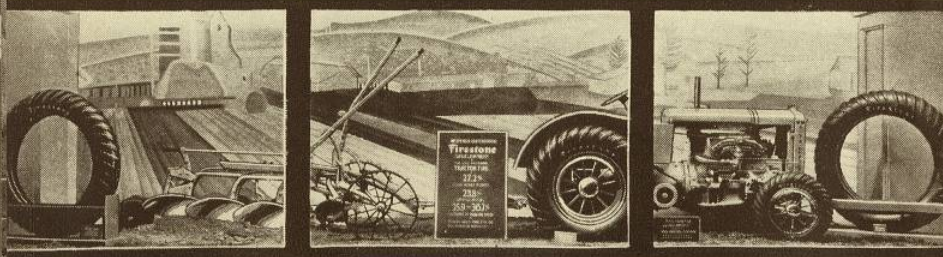
FIRESTONE "ALL PRODUCTS" DISPLAY

FIRESTONE RIM DISPLAY



FIRESTONE TRACTOR TIRE DISPLAY

FIRESTONE TRUCK & BUS TIRE DISPLAY



» » **DISPLAY OF FIRESTONE** **ONE-STOP SERVICE STATION** « «



The tire department

**FIRESTONE HAS THE
TION AND SERVICE**

Firestone pioneered and organized the greatest distribution and service system in the world.

Six hundred Firestone owned and controlled distributing points are strategically located throughout the United States to give twenty-four hour service to 30,000 service deal-

**GREATEST DISTRIBUTION
SYSTEM IN WORLD**

ers and service stores in practically every town and city in the country.

This one-profit low expense system was organized to give car owners greater value with more efficient service and lower cost, saving motorists millions of dollars annually.



The repair department



Lubrication department



Battery department



The brake department



Ignition department



FIRESTONE SINGING COLOR FOUNTAIN ONE OF THE MARVELS OF THE WORLD'S FAIR

From the Hall of Science on Lief Erickson Drive, one sees and hears the Firestone Singing Color Fountain, situated directly in front of the entrance to the Firestone factory and exhibition building. The six dome-shaped fountains of misty spray are situated in a beautiful pool 100 feet long, 15 feet wide, surrounded by beautiful lawns, flowers, and hedges. The artistic fountain, with jets of water reaching a height of 20 feet, rises out of the pool in majestic beauty.

A concert of beautiful instrumental and vocal music is given day and night in this beautiful garden spot.

By means of delicate mechanism the music is perfectly synchronized with the many colored lights beneath the fountain domes, which produces every conceivable shading of colors in the water. The color variations are in perfect harmony and are actually operated by the varying tone values in the music that is being played.

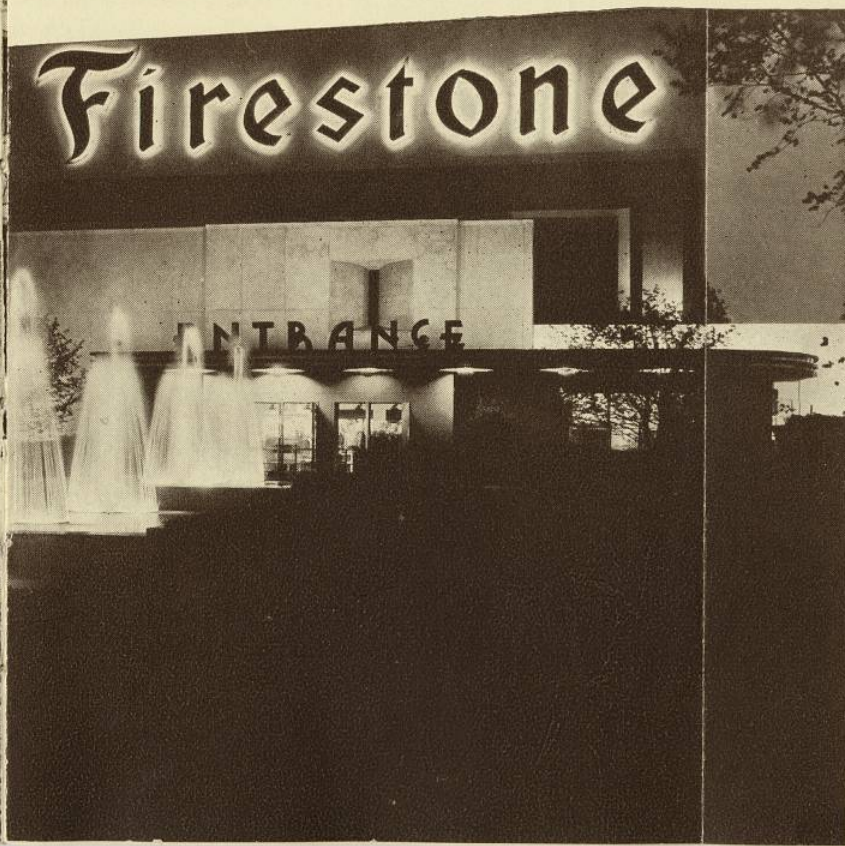
It is the only installation of its kind in the world, and presents to each visitor an enchanting beauty that is never to be forgotten.



FIRESTONE MULTI-COLOR SHADOW SIGN ANOTHER MARVEL OF THE WORLD'S FAIR

Situated on top of the Firestone factory and exhibition building, eighty feet long, and rising majestically above the surrounding gardens is the first sign of its kind installed anywhere in the world. The sign is constructed of multiple planes behind which thousands of vari-colored electric bulbs are concealed. The sign reflects shadows in a never-ending combination of beautiful blues, greens, ambers, and orange, in varying intensity of brilliancy.

The operation of the sign not only creates a dignified beautiful spectacle, but it also creates amazement among the spectators, as the sign has a tendency to create the feeling that it is moving toward one in a succession of gorgeous color combinations that is a marvel of beauty.





Firestone Rubber Preparation Factory and Warehouse---Far East---Singapore



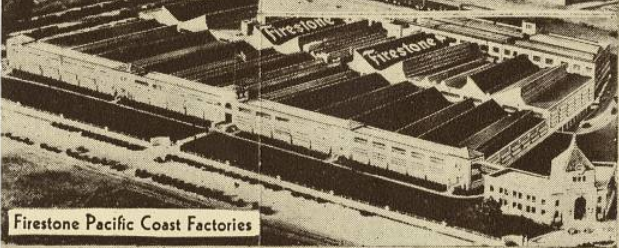
Firestone Akron Rim Factories



Firestone South American Factories



Firestone Pacific Coast Battery Factory



Firestone Pacific Coast Factories



Firestone Akron Battery Factory

ONE OF OVER 30,000 FIRESTONE ONE-STOP SERVICE DEALERS AND SERVICE STORES

FIRESTONE FACTORIES

Worldwide Service

Firestone factories are strategically located all over the world for the economical production and distribution of Firestone products. The Firestone factories have the greatest productive efficiency in the tire industry. Practically all the machinery is designed by Firestone engineers and manufactured in Firestone machine shops. In addition to Firestone's own tire factories they have their own rubber preparation mills in Singapore—cotton fabric mills and warehouse in the United States—their own battery factories in Akron and Los Angeles—their own rim and wheel factory, spark plug and brake lining factory.

The tremendous savings in efficient manufacturing are passed on to the consumer in the form of extra quality and values built into Firestone products.



Firestone Cord Fabric Factory No. 1



Firestone Cord Fabric Factory No. 2



Firestone Cord Fabric Factory No. 3



Firestone Canadian Factories

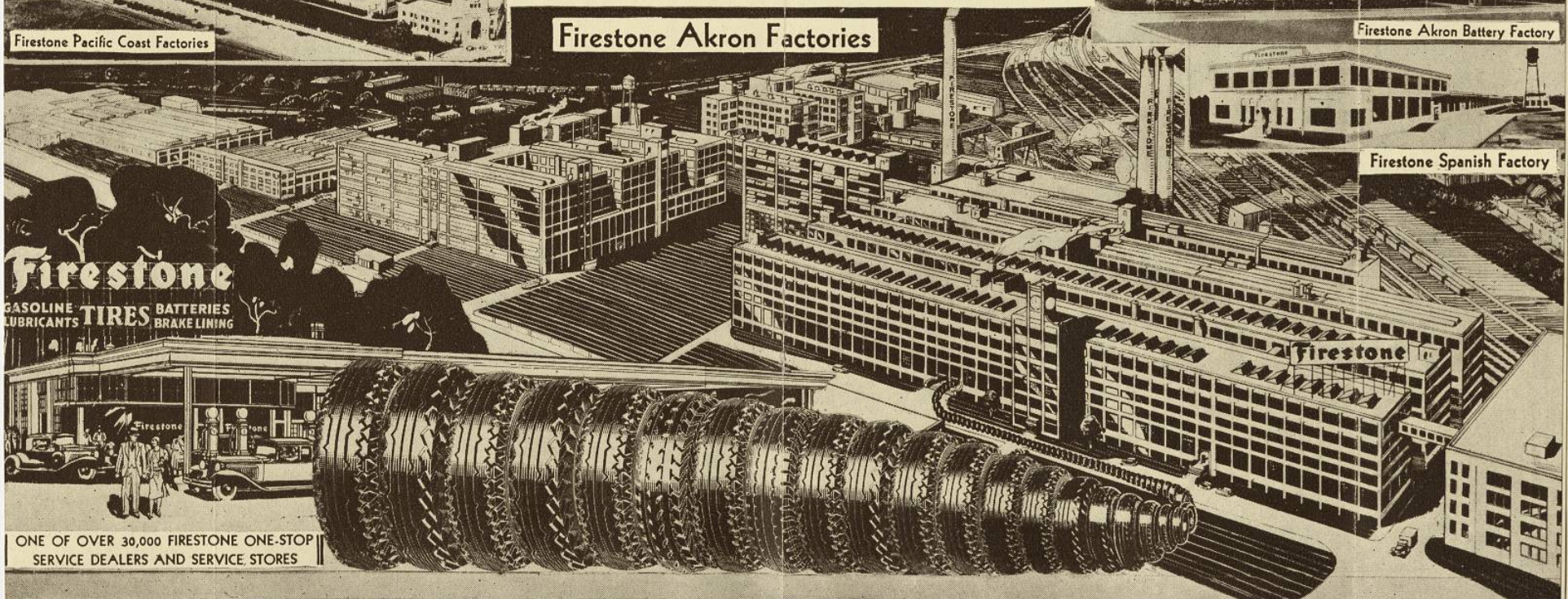


Firestone Brentford, England, Factories



Firestone Spanish Factory

Firestone Akron Factories



Firestone
GASOLINE TIRES BATTERIES
LUBRICANTS BRAKE LINING

FIRESTONE

Worldwide

RESOURCES



THE MARK OF QUALITY



Firestone factories located throughout the world are served by groups of expert buyers who go to the primary sources of supply for rubber, cotton, and other raw materials that enter into the manufacture of Firestone products. Rubber buying offices in the Far East enable Firestone to secure crude rubber direct from the plantations. Firestone's own rubber plantations in Liberia, Africa, produce crude rubber of unusually high quality.

Cotton, is bought in the primary markets and shipped to the

Firestone Cotton Warehouses. Direct buying of rubber and cotton results in tremendous saving in addition to the tremendous savings made in Firestone's factories, admittedly the most efficient in the world.

Quality materials bought in world markets at lowest prices, exclusive manufacturing processes, not enjoyed by other concerns, precision machinery, unexcelled manufacturing and distribution efficiency—all contribute to the Extra Values that enable Firestone products to save the consumer money and serve him better.

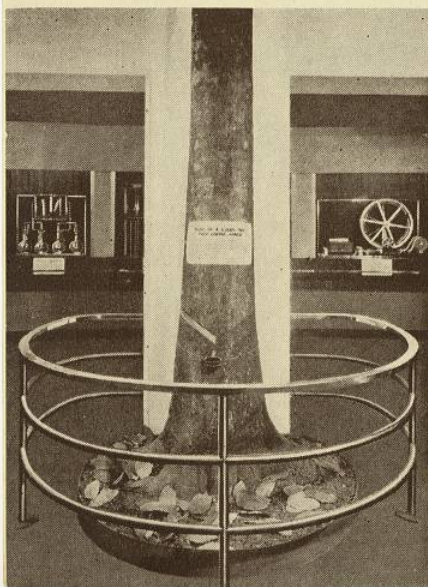
FIRESTONE REPRESENTS RUBBER



One of the dioramas in Firestone exhibit in the Hall of Science showing rubber latex being tapped from high-production bud-grafted rubber trees on Firestone's great Liberian plantation

The Firestone Tire & Rubber Company was signally honored by being selected as the one rubber company in the Industry to present at the great Hall of Science a complete scientific rubber exhibit. The World's Fair Committee requested Firestone to represent the entire Rubber Industry, one of the most romantic and interesting of all divisions of our modern commerce.

On one side of the exhibit, in the very center of the great Hall, occupying the most strategic position, is a graphic presentation, showing the gathering of rubber from wild trees in the jungle, as it was done fifty years ago, the coagulation and preserving process over smoky fires, and the forming of the rubber into large para biscuits.



On the other side is a presentation of rubber trees growing from bud-grafted stock on the modern Firestone rubber plantations in Liberia, Africa. Scientific exhibits include the chemical preparation of rubber caused by a certain acid being mixed with the latex. Another shows how rubber is being electrically deposited on metal, which forms many of the motor supports for our modern automobiles and

Tapping latex from a Liberian rubber tree

INDUSTRY IN HALL OF SCIENCE

trucks and buses, as well as many new developments in the form of vibration dampeners for industrial machines.

Another exhibit shows the vulcanization of rubber by the application of heat to rubber and sulphur, showing the increased tensile strength of vulcanization, and how the time required for vulcanization has been shortened by the development of compounds known as accelerators, and giving to rubber still greater strength.

Another scientific exhibit shows how development of vulcanization eliminates the stickiness and plastic flow of raw rubber—and how the addition of certain finely divided solids incorporated into the raw rubber when vulcanized, stiffens, toughens, and strengthens the rubber to create long wear.

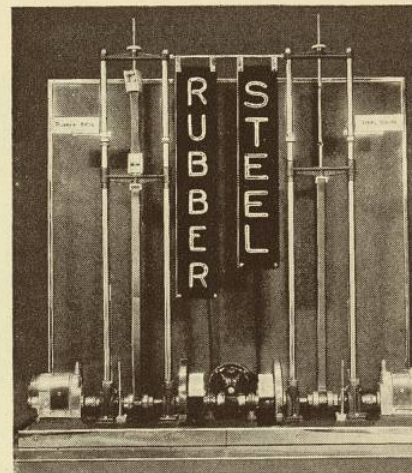
Another shows the greater energy stored by stretching a rubber band, compared with stretching a steel spring of the same weight, each measured by electricity as indicated by a Neon light.

Still another interesting exhibit is rubber's resistance to wear as compared to steel, by subjecting it to the action of a jet of water containing sharp, erosive material.

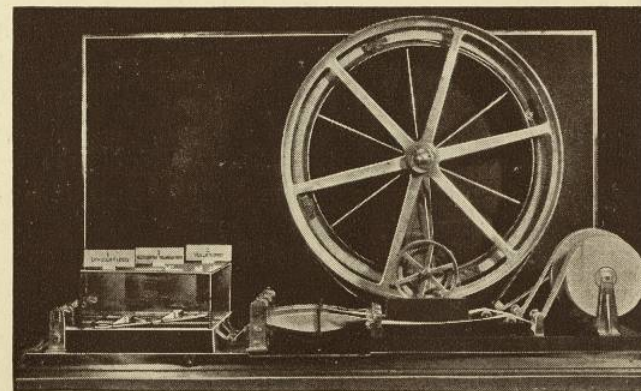
It is also shown how the long life of rubber has been accomplished, by adding certain chemicals, which repel oxygen and help to keep the rubber from deteriorating.

These exhibits demonstrate how Firestone leads the industry.

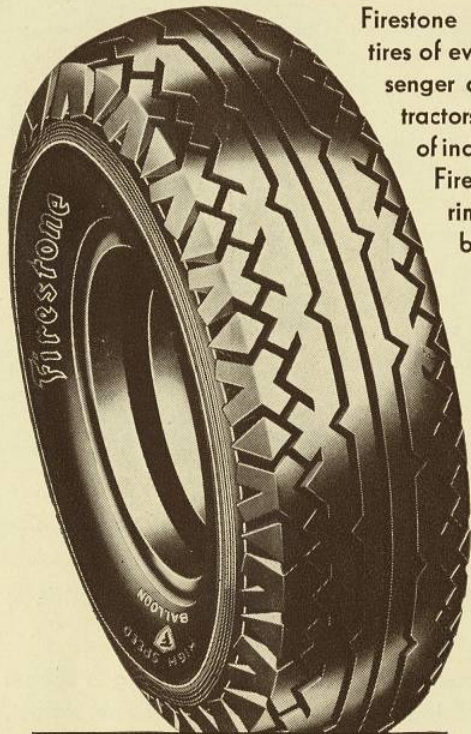
Compares unvulcanized, vulcanized and accelerated vulcanized rubber by the balloon test



Energy test, rubber and steel



FIRESTONE PRODUCTS



The **GOLD STANDARD**
of TIRE VALUES

Firestone builds complete lines of tires of every type and size for passenger cars, trucks, trailers, buses, tractors, airplanes—and all kinds of industrial motor vehicles. Also Firestone batteries, spark plugs, rims, accessories, special rubber goods, and a complete line of rubber footwear. Firestone leadership is responsible for many major tire developments. These include the mechanical wired-on tire, now known as the Straight - Side Tire—rubber non-skid—demountable rims—patented Gum-Dipping process—original balloon tire—patented construction of two Extra Gum-Dipped Cord Plies under the Tread and low-pressure tractor tire.

» FIRESTONE « HIGH SPEED GUM-DIPPED TIRE

The Firestone High Speed Gum-Dipped Tire is admittedly the MASTERPIECE OF TIRE CONSTRUCTION. A tire of higher quality, greater safety, and longer mileage than any tire built. It is in a class by itself.

FIRESTONE SEALTYTE LEAK-PROOF TUBE

The new Firestone Sealtyte Leak-Proof Tube is coated inside with a special compound which seals against air loss—flexible rubber stem. No chance for air leakage. Constant air pressure greatly increases tire mileage.



FIRESTONE PRODUCTS

FIRESTONE INVITES YOU TO
COMPARE CONSTRUCTION—
QUALITY—AND PRICE

FIRESTONE SUPER OLDFIELD TYPE

This tire is the equal of all standard brand first line tires in Quality, Construction and Appearance. Sold at a price that affords you real savings.



FIRESTONE OLDFIELD TYPE

This tire is superior in quality to first line special brand tires made without the manufacturer's name and guarantee, and offered for sale by mail order catalog houses and others. This is "The Tire That Taught Thrift to Millions."

FIRESTONE SENTINEL TYPE

This tire is of better Quality, Construction and Workmanship than second line special brand tires made without the manufacturer's name and guarantee and offered for sale by mail order houses and others.

FIRESTONE COURIER TYPE

This tire is of good Quality and Workmanship—carries the name "Firestone" and full guarantee—sold as low as many cheap special brand tires manufactured to sell at a price.



FIRESTONE PRODUCTS

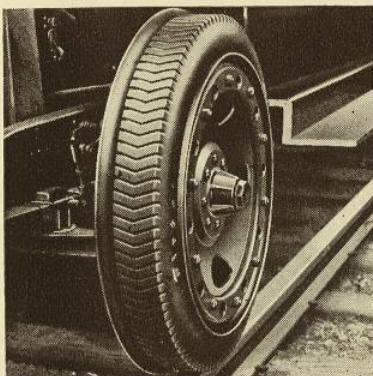
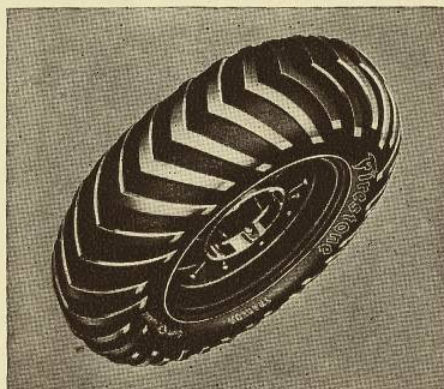


FIRESTONE AIR BALLOON

Firestone Air Balloons set a new standard of style, provide a luxurious low-sprung balance, provide easier riding comfort, fewer repairs, less depreciation, more road traction, and greater safety with quicker starting and stopping. A new motoring thrill.

FIRESTONE TRACTOR TIRE

Makes any tractor an all-purpose machine. Operates with only twelve pounds of air. In addition to plowing, discing and general farm work, tractors can now be operated on paved roads. Do more work each day with less cost. Less depreciation in equipment. No damage to barn or garage floors.



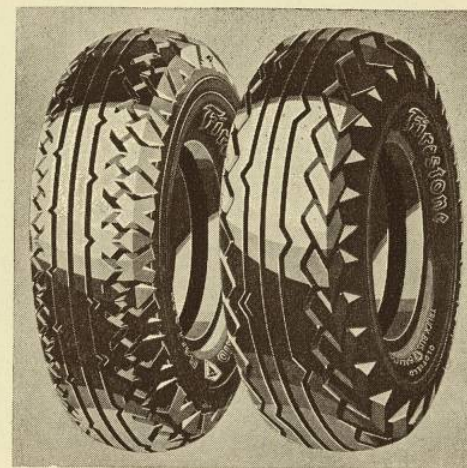
FIRESTONE RAILROAD TIRE

Firestone has developed, tested and proven a new type pneumatic cushion tire for railroad use. Provides smooth, quiet, safe, economical and fast transportation. It is easy to convert any car or bus for rail use with this tire. Very popular for inspection cars.

FIRESTONE PRODUCTS

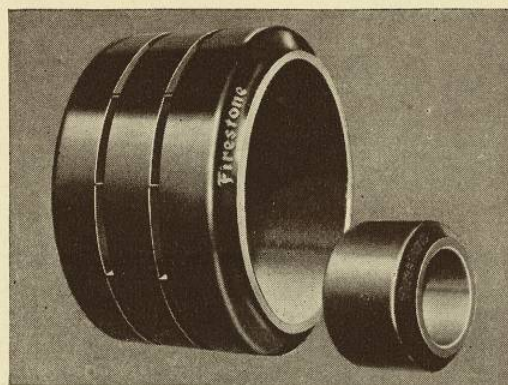
FIRESTONE TRUCK AND BUS TIRES

Firestone makes a complete line of truck and bus tires, in all sizes and types, and in a complete range of prices, to meet every trucking requirement. These include all sizes of truck and bus balloons in two tread designs; high pressure pneumatics; Ground Grip type for extra traction in dump truck and contracting services, oil fields, logging, etc.; and solid tires.



Firestone Non-Skid Type (left) and Firestone Oldfield Type (right) Truck & Bus Tires

FIRESTONE INDUSTRIAL TIRES



These tires are built in a great variety of types and sizes for industrial and electric battery trucks, as well as trailers, used by warehouses, railways and many manufacturing plants. They are made in three types of metal

base—Band Type, flat steel base, rubber flush at edges of steel; Channel Type, extra wide with flanges at sides; Malleable Iron Base, which eliminates base separation from overload and side injury. They are both economical and quiet, and protect the merchandise due to their easy riding qualities.

FIRESTONE PRODUCTS



FIRESTONE COMPLETE LINE OF BATTERIES

Firestone manufactures a battery for every car, truck or bus in a complete range of prices. These batteries are built with extra patented construction features to give maximum power, long life and dependability. They set a new standard

Firestone Batteries give Extra Power

of battery performance. Manufactured in Firestone's own battery factories in Akron and Los Angeles.

FIRESTONE COMPLETE LINE OF SPARK PLUGS

Manufactured in Firestone's new spark plug factory. The latest and most modern equipment build into Firestone Long Life Spark Plugs new patented construction features to meet the exacting requirements of each motor car manufacturer—and to give you efficient, economical performance.

Firestone Spark Plugs have four points of superiority:

1. New improved porcelain.
2. Power seals prevent compression losses.
3. Accurate threading insures a perfect fit.
4. Composition and shape of electrodes provide gap that assures easier starting and longer life.



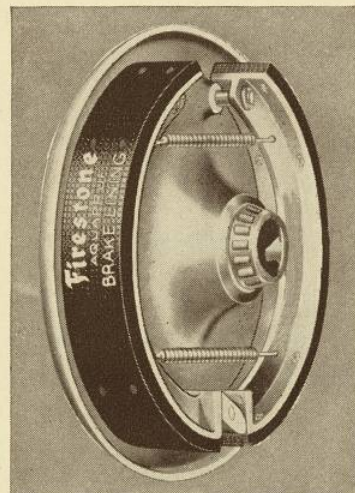
FIRESTONE PRODUCTS

FIRESTONE AQUAPRUF BRAKE LINING

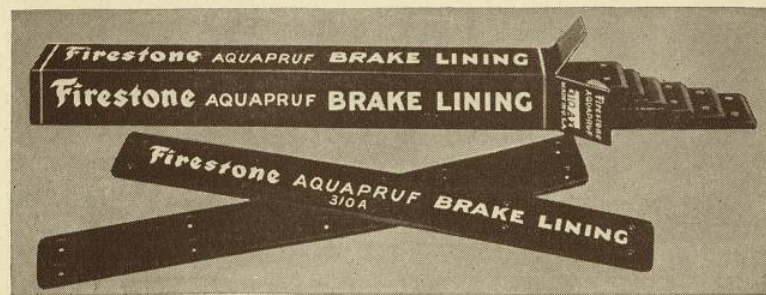
This new Firestone achievement is the outstanding development of the motor industry.

It is a brake lining that has been scientifically treated to actually give drivers the same smooth, safe, sure brake action in either wet or dry weather.

The lining is made in three frictions to meet requirements of each type of motor car and design of brake.



Firestone Aquapruf Brake Lining is made in 25 ft. rolls, and also in countersunk, drilled sets



Firestone Aquapruf Brake Lining in set, drilled and countersunk

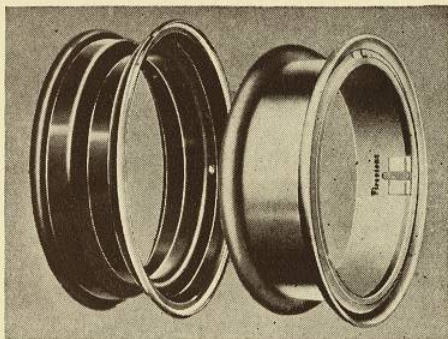
FIRESTONE PRODUCTS

FIRESTONE RIMS

Firestone Continuous Base Rims and Firestone Passenger Car Rims are the standards of the automobile industry.

There is complete interchangeability of all sizes in the same diameter with Firestone Continuous Base Rims.

Firestone's rim factory at Akron is a marvel of production efficiency.



Firestone Rims are the acknowledged standard of the automobile industry



Firestone Touch-Up Enamel with brush

Firestone Top Dressing

Firestone Repair Kit

Firestone Fan Belts on millions of cars

FIRESTONE COMPLETE LINE OF ACCESSORIES



Radiator Hose and Anti-Freeze

Firestone manufactures and vends a complete line of motoring accessories—Tube Repair Kits; Cure Cut (plastic self-curing rubber for repairing minor injuries); Patching Cement (for tube repair, rubber goods' repairs, artists' use, etc.); Cross Patches; Tire Plugs; Tube Protectors; Tire Changer; Rubber Flaps and Flap Material; Hot Patches; Holdfast Friction Tape; High Test Friction Tape; Radiator Hose; Automobile Polish; Tire Paint; Top Dressing; Touch-Up Enamel; White Sidewall Tire Cleaner; Anti-Freeze; Radiator Cleaner; Mica; Fan Belts, etc.

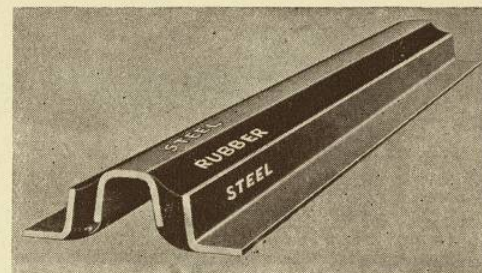
FIRESTONE PRODUCTS

FIRESTONE MECHANICAL GOODS

Firestone has recently invested several million dollars in research and manufacturing facilities to further expand this division of the company's business. Whatever your needs in special rubber goods, Firestone can give you quality with service.

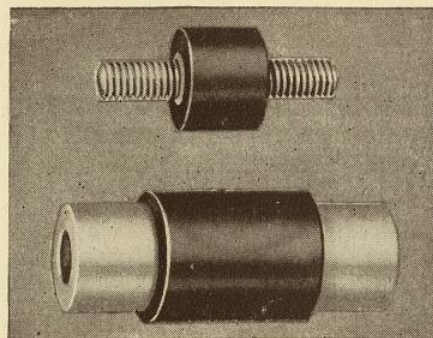
FIRESTONE VIBRATION DAMPENER

Among the latest developments, is the Firestone Vibration Dampener. This is a bonded rubber-to-metal product upon which machinery is set, increasing the life, efficiency and smoothness of the machine. This elastic mounting can be used with almost any type of moving machinery. It has received the indorsement of leading engineers as an effective aid to the elimination of vibration and the reduction of machine noises.



Firestone Vibration Dampener

FIRESTONE CUSHION CONNECTORS AND FLEXIBLE COUPLINGS



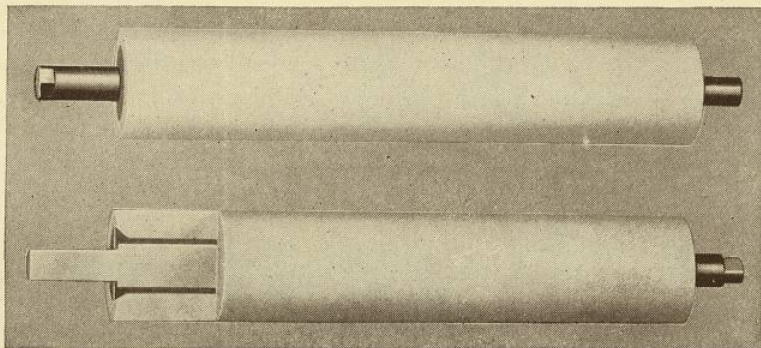
*Above—Firestone Cushion Connector
Below—Firestone Flexible Coupling*

Firestone Cushion Connectors — resilient supports used to anchor small motors or machines—eliminate vibration and hum.

Firestone Flexible Couplings smooth out sudden jerks when starting motors and correct any slight misalignment between motor shaft and driven unit. Used for all direct motor driven machines.

FIRESTONE PRODUCTS

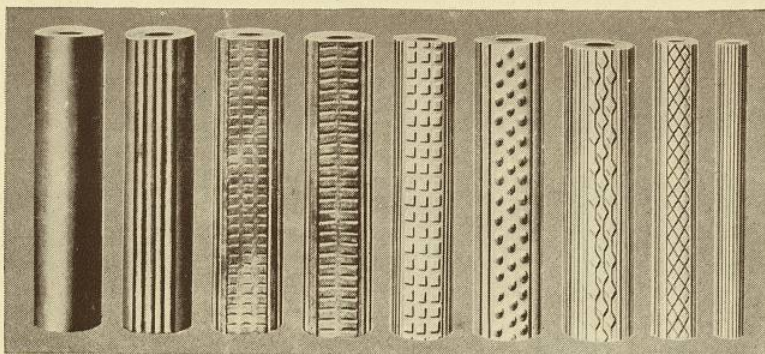
FIRESTONE WRINGER ROLLS



Section of Firestone Wringer Roll shows high quality construction

Supplied to leading washing machine producers in the country. Perfectly bonded seal between metal shaft and rubber roll—chemical and mechanical seal. Long lasting, smooth and flexible rolls assure complete satisfaction.

FIRESTONE JUVENILE TIRING



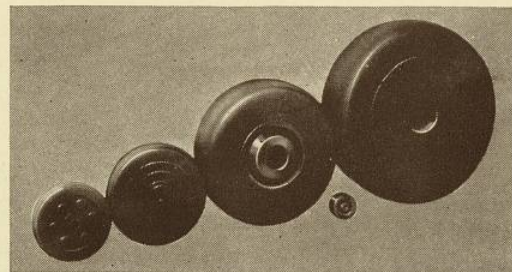
All these designs are available. Special designs made to order

Firestone is the world's largest producer of tiring for coaster wagons, scooters, velocipedes, baby carriages, and other juvenile vehicles. Sizes range from one-half inch in diameter to one and one-half inch in diameter. Special designs and patterns are produced to customers' specifications when requested.

FIRESTONE PRODUCTS

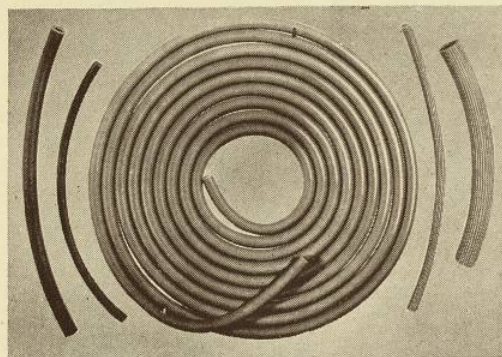
FIRESTONE RUBBER CASTER WHEELS

Modern engineering, scientific design, and efficient production have made Firestone the leading manufacturer in this line. Two types; hard rubber and hard rubber core with soft tread.



Caster Wheels come in all styles and sizes

FIRESTONE RUBBER TUBING



Rubber Tubing can be had in any style

Firestone rubber tubing is made any size, according to customers own specifications, in any corrugation, flexibility, strength and color. All grades from the finest grade of pure, soft rubber for surgical use, to the lowest priced.

FIRESTONE INDUSTRIAL FLOORING

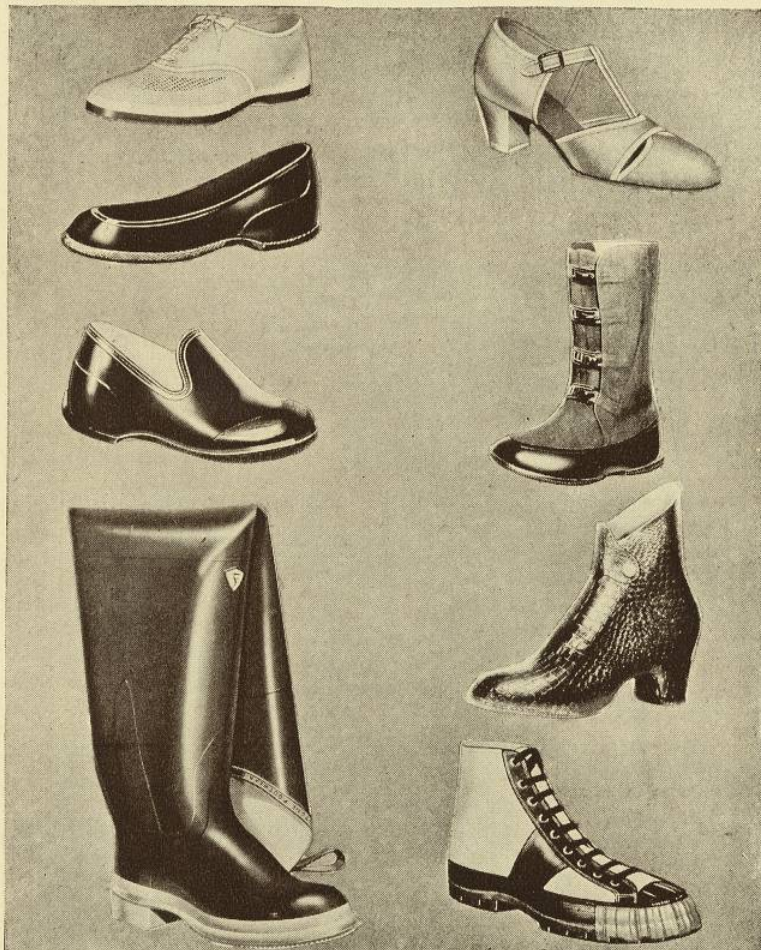
Reinforced by webbed stock molded into rubber for added protection and to give many years of heavy service. Will greatly outlast cement finishes. Large orders can be handled promptly.



FIRESTONE PRODUCTS

FIRESTONE FOOTWEAR

On this page are shown a few of the many Firestone footwear products. Firestone style lines, recognized as leaders everywhere, combine distinctiveness and wearing qualities. The factory at Hudson, Mass., is one of the most efficient in the country.



Samples of Firestone Footwear. Left (top down): Women's Mesh Sport Oxford. — Multifit Clog. — Storm Rubber. — Black Storm Hip Boot. Right (top down). Deb Sandal. — Four Buckle Cloth Gaiter. — Women's Concealed Fastener Gaiter. — Men's Tiretred Canvas Footwear

Firestone GUM-DIPPED TIRES

Hold All World's Records on Road and Track
for SAFETY, SPEED, MILEAGE and ENDURANCE

For fourteen consecutive years, Firestone Gum-Dipped Tires have been on the winning cars in the 500-mile Indianapolis Race.

Ab Jenkins recently set another world's record on Firestone Tires by driving his Pierce-Arrow 112 miles per hour for 24 consecutive hours, covering 2,710 miles, on the hot salt sands of Salduro, Utah, without tire trouble.

A Firestone-equipped Studebaker ran 30,000 miles in 26,327 consecutive minutes at Atlantic City in 1928—averaging 68.3711 miles an hour for nearly 439 consecutive hours—the longest endurance run on record.

Glen Shultz recently broke another world's record in the daring Pike's Peak Climb, where a skid or tire failure meant death. This is the sixth consecutive year Firestone Non-Skid Tires have been on the winning car.

All existing closed stock car records were broken in 1932, by Eddie Miller in an Auburn 12-160 Brougham, averaging 113 miles an hour for 500 miles at Muroc Dry Lake, Calif., on Firestones.

The Graham 8 that made the new record in 1932 for the Mt. Washington (N. H.) climb was equipped with Firestone Gum-Dipped Balloons.

Firestone Gum-Dipped Tires were used on the 131 buses of Washington (D. C.) Railway & Electric Co. which ran 7,238,705 miles without a tire failure.

The G. M. C. Truck, carrying a two-ton load, that hung up the Coast-to-Coast Endurance Record, was Firestone-equipped.

Firestone Pneumatic Rail Tires equipped the automobile that set a new rail record from Miami to Jacksonville, 406 miles at an average of 64.39 miles per hour.

Form M413-6-33





The MARK of QUALITY

