

## TIRE STRAIN IS GREAT

Quality of Fabric a Vital Question to Motorists.

## MANY GRADES OF COTTON

Inside Facts About Casings Disclosed by President of Firestone Company.

New angles on tires and the service they should give were brought out by H. S. Firestone, president of the Firestone Company, of Akron, Ohio, in a talk with a reporter for The Tribune last night. Few people consider, Mr. Firestone explained, the vitally important part fabric plays in tire worth. Talking on this point, he said:

"Fabric is more than the foundation of the tire. It is the keystone and the backbone of automobilism and the automobile industry. Think what a tire must stand. From the outside there is the weight of the car and the load. Then there is the additional terrific strain when a stone, ridge or rut is struck. If the car is going fast the tire gets a piledriver blow.

"From within the strain is as great and constant. Thousands of pounds pressure battle against the fabric, searching for a weakness, if only a poor thread, a tiny pinch or a bubble. Looked at in this light, it seems that there should be but one grade of fabric for tires—the strongest and best that can be produced.

"Yet there are more than fifty grades—Sea Island combed, in different qualities, Egyptian combed in many more grades, Egyptian carded in many still cheaper grades. This accounts in part for the many grades of tires—the different degrees of quality.

"All that car owners have heard about fabric is that Sea Island cotton is used. That makes a good talking point. The best fabric possible to buy is made from Sea Island cotton. This cotton, grown on the islands off the coast of the Carolinas or from seed produced there, has a long, strong fibre. Just suited for making a tough, strain resisting tire body. But even this is sold in many grades.

"The highest grade and most expensive Sea Island combed fabric—such as is used in Firestone tires—is made of that same tough material which is used for making first quality sewing thread. Twist eleven pieces of this thread into one, and you have an idea of Firestone wrap. Weave twenty of these wraps into each square inch, with the cross threads in such a way as to withstand a test several times more severe than any possible service strain, and you have an idea of the strength of our fabric.

"All tires should be made of this quality of fabric, particularly the larger sizes, but they are not. Furthermore, even the best fabric should be tested at least twice to every roll and inspected inch by inch for uniformity. As proof of the need of this inspection, carload after carload of the highest priced fabric made is returned by our factory because it is not up to the standard.

"With the right kind of fabric, quality and quantity of rubber, care in workmanship, skill in application and inspection either make or ruin the product. Complete adhesion is accomplished, as in the case of Firestone building, by the use of enough up-river fine Para rubber. Every mesh of fabric must be completely and evenly filled, and an extra layer must be applied between each layer of fabric.

"The next vital question is the number of layers or walls of this rubber-filled fabric to use. Even the low grade is costly and every wall added means more cost. Temptation again steps in and suggests that three layers might do on a size where four are essential, and so on. They will, for a little while, under the most favorable conditions. The number of layers do not show, so appearances won't prevent the sale. But where quality is the standard, where security, length of service and final economy for the user are the aim, walls of fabric cannot be spared."

## MOTORCYCLING IN WINTER.

Winter runs, which are being planned and conducted by many motorcycle clubs throughout the country, demonstrate that the motorcycle is an "all-the-year-round" machine.

Fair skies and summer breezes are appreciated by motorcyclists, but they are not willing to forego the pleasures of motorcycling just because of snow and cold.

The Queen City Motorcycle Club, of Cincinnati, is one of the clubs that believe in winter motorcycling activities. Its members have formed a winter riding squad, and a series of snow runs during the winter months has been planned.

The first is booked for to-day, when the motorcyclists will take a spin of thirty-five miles to the famous Fort Ancient Hills.

The Wanderers' Motorcycle Club, of Toronto, Ont., also has its "bat in the ring."

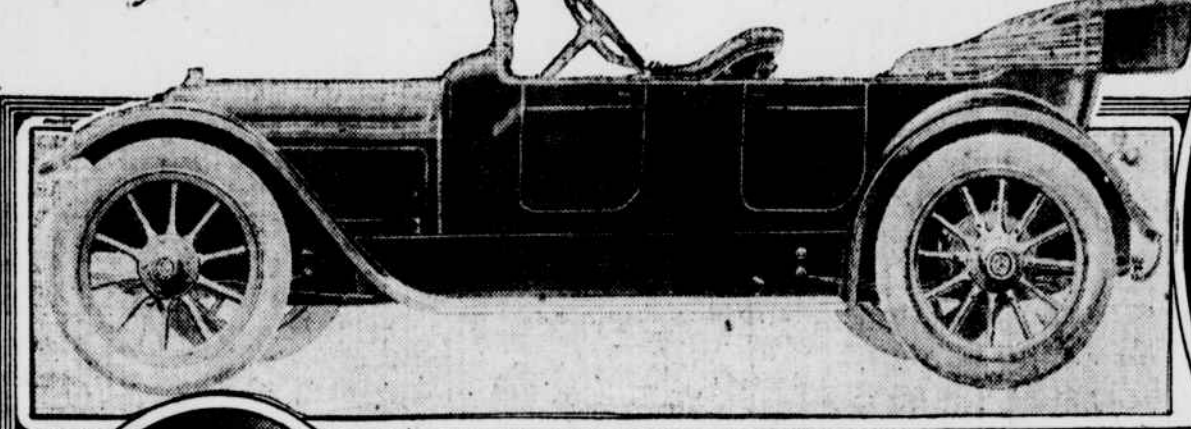
Its members propose to continue the club runs right on through the winter, regardless of the snow and the cold.

## OPEN CARS WORTH SEEING AT SHOW IN GARDEN.

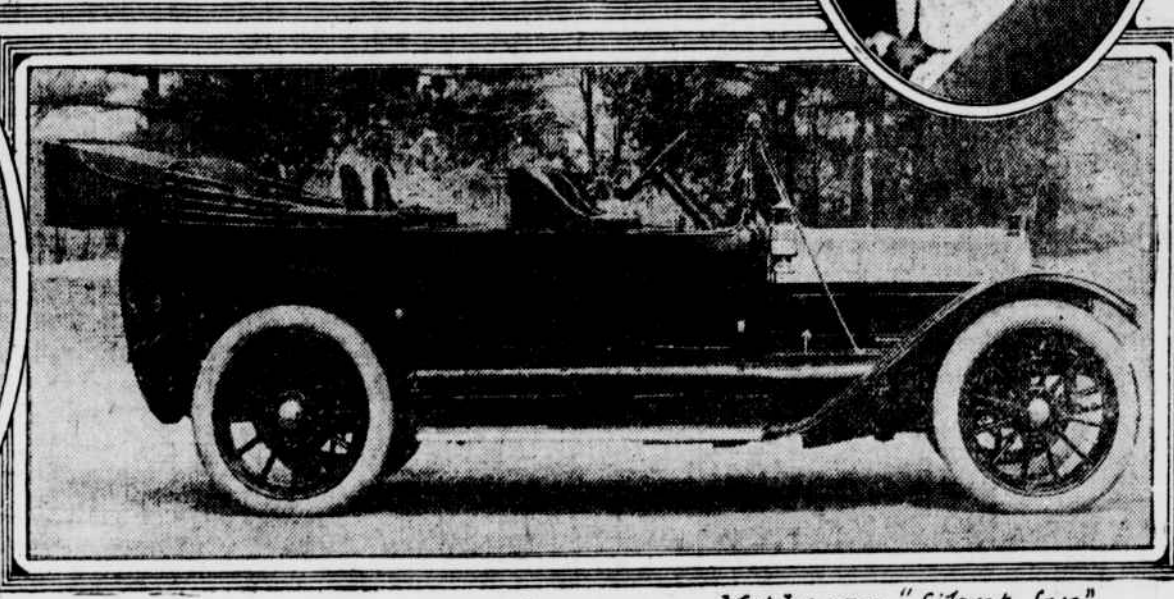
New Garford Six

President Willis Overland Co.

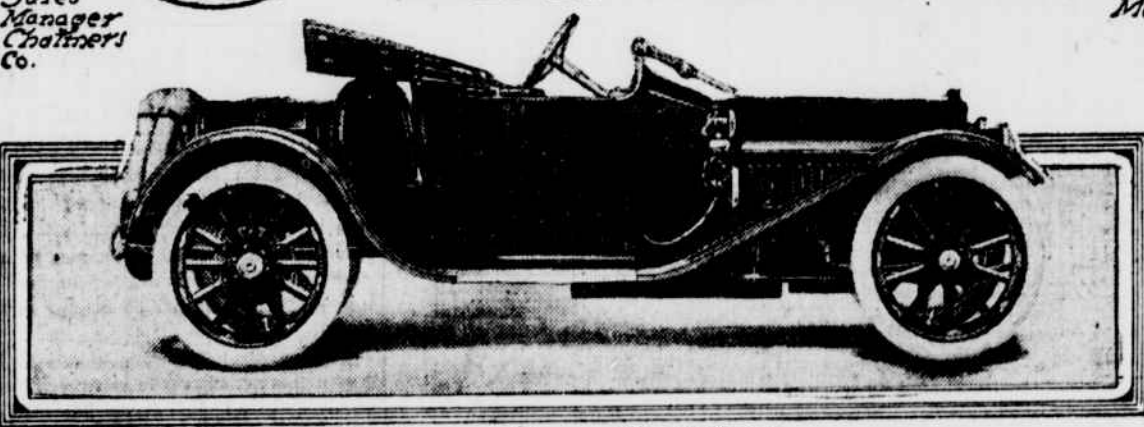
John N. Willys



Percy Owen, Sales Manager Chalmers Co.



Matheson "Silent Six"



Chalmers Six Roadster

## Overheated Engines a Danger and Expense

Carbonized Cylinders are One Cause for Complaint.

## RICH MIXTURE ANOTHER

Leaking Radiators and Stoppage of Oil Often Ruin the Best Motors.

Overheating of motors can be divided into two classes—chronic and acute. Chronic overheating, owing to inadequate cooling surface and poor design, is seldom found on modern cars, because all engines now provide ample cooling surface for their cars. When this chronic condition is found it cannot be combated except by fitting a larger radiator or pump, says George H. Townsend, 23, the amateur racing driver.

However, motorists term carbonized cylinders or over-rich mixture as chronic conditions, which ultimately cause damage to the motor. There is no sure road to ascertaining these conditions except by knowing the running temperatures of the "other fellow" who has the same model as you have. Ride with him and find out how his car acts under similar road conditions. Feel the radiator as often as possible, or preferably take the temperature of his circulating water. If his car runs cooler and is snappier, investigate your own mixture. Cut down the gasoline all it will stand without popping back in the carburetor. A difference in efficiency may be apparent at once. If your car still runs hot, clean out the carbon on the cylinders and piston heads, also valve ports, for carbon frequently causes high cylinder temperature, and every mile you go in an overheated condition is wearing out your engine. While it may not cause any great degree of

annoyance for a time, damage is nevertheless being done, and a few weeks of this abuse may ruin the motor.

Acute overheating is trouble that develops suddenly on the road and is even worse than chronic, for it means immediate and costly repairs. Even the most expert drivers cannot tell when their radiators may spring a leak and lose all the water—a pet cock may jar open or the water pump break. At such times cars which under ordinary conditions show no sign of overheating will heat up and crack their cylinders before the driver is aware of the existing condition.

Drivers should take every precaution to prevent the occurrence of these troubles, because acute overheating means such heavy repairs as replacing cylinders and pistons which will run into hundreds of dollars. About the only way to guard against acute overheating is to tape up water drains and watch the condition of the clips on the hose connections. Even then the possibility of a sudden radiator leak cannot be guarded against nor the breakage of the water pumps or connections.

On long reliability runs it is customary for the passenger to watch at the side of the radiator for steam to come from the overflow pipe, this being a possible way of determining a deranged cooling system. Unfortunately, it is not possible to drive with one's hand on the radiator, for by means of radiator temperature it is not only possible to tell water loss, but also overheating due to stoppage of oil, as it is a well known fact that the failure of the oiling system produces quick, acute overheating with most disastrous results.

## FRANCE LIKES "BABY CARS."

France is at present showing a decided preference for what have been termed "baby cars"—small, light, two-seaters, costing little more than a first class

motorcycle and having about the same upkeep cost. Up to recently these machines have been produced by firms of comparatively little importance, but rumor has had it that one of the larger companies will enter the market.

## WANTS NATIONAL HIGHWAY

Military Roads Between State Capitals a New Scheme.

That national roads should be built by the government is a belief which is becoming country-wide in its acceptance. The latest proposition brought forth along these lines is by Representative Stanton Warburton, of Washington, who contends for a system of national military roads. Mr. Warburton proposes to make the tobacco users of the country pay for the building of these national highways through the imposition of a tax so small that the smokers will go right on smoking as usual, without consciousness of the great benefit they are bestowing upon the people of this country.

The plan contemplates trunk lines connecting the capitals of every state with the national capital and with each other, and also with the principal national parks, the government to locate the lines between the capitals along the most feasible routes, with the states granting to the government the selected roadways, together with the improvements thereon.

## THE AUTO AS A LIBRARY.

The Delaware State Library Commission is using an automobile to handle its travelling library, and finds that the results are excellent and the cost no greater than would be the case with a horse and wagon.

Bodies Built to Order  
Simplex Idea on 1913 Cars

Private Show on Columbus Circle Discloses Latest Types of Famous Make.

The most striking feature of the Simplex line for 1913 lies in the fact that every car turned out will have a body more or less made to order, giving it a distinctive appearance and frequently embodying some striking idea of the buyer's own suggestion.

The models consist of a 35-horsepower shaft drive, a 50-horsepower shaft drive, a 50-horsepower chain drive and a 90-horsepower chain drive. This affords a sufficiently wide range of motor size for any automobile user, all having plenty of speed and power. The 35-horsepower model develops more power than some cars of twice its motor size.

Among the cars being featured particularly in the private exhibition now under way in the Simplex showroom, on Columbus Circle, is a 35-horsepower seven-passenger coach limousine on a shaft drive chassis. This will be painted and upholstered according to the specifications of the purchaser. Its sloping motor bonnet marks the final elimination of the lines of the horse-drawn vehicle in automobile body construction. A roof which dips low in front, meeting

the wind shield, and French plate glass in frameless windows and imported upholstery make this car especially attractive.

Similar to this is the 35-horsepower seven-passenger coach landaulet, which combines all the advantages of the limousine with those of the landaulet. Equally handsome are a "35" seven-passenger coach limousine and a "35" seven-passenger coach landaulet. In the latter the large rear windows are a distinguishing feature.

Imported French upholstery, vanity boxes, smoking sets, special side arm seats which fold closely when not required for use and which can be faced either way, inlaid mahogany panels, etc., are Simplex body features resulting from long experience in body building. Most of these models have a curved drop in the running board to permit extra tires to fit snugly.

Touring car models designed to carry five and seven passengers represent the highest sort of workmanship. Every little detail conducive to the comfort of passenger and driver that is applicable to an open car has been incorporated in this. The 90-horsepower chassis fitted with either runabout or touring body of course is a model which only appeals to those who have a liking for very high powered cars.

AUTOMOBILES.

AUTOMOBILES.



To you who plan to spend \$1500 to \$3500 for a car

In choosing your car there are two questions you will have to settle: First—"What features, what qualities do I want?" Second—"In what car can I get these features, these qualities most economically?"

You will want a car with a known reputation, a car you can be proud of, a car actually built by the company whose name it bears.

You will want a comfortable car, a beautiful car, a convenient car. A car with self-starter, electric lights, demountable rims. A car with big wheels and tires. Nickel trimmings. Turkish cushions and luxurious upholstery.

You will want a car with ample power. A long-stroke motor. A four-forward speed transmission. A car whose mechanical features are of unquestioned soundness.

You get all these qualities in the Chalmers—and at a medium price.

Remember—below a certain figure it is impossible to buy the quality you should have in your car. Above a certain figure it is impossible to put in enough extra quality to justify the higher price.

So we believe your choice should narrow down to a Chalmers "Thirty-Six" at \$1950, or a Chalmers "Six" at \$2400. These cars offer all the comfort, convenience, luxury and good looks you demand. They offer all the quality. All the reputation. They are built in Chalmers shops.

See them at the show—and decide the motor car question by buying now.

## Take a Picture Trip Through Chalmers Shops At Our Exhibit

Come to Space 21, Madison Square Garden and let us show you how Chalmers cars are built in Chalmers shops.

See the cars themselves. See the parts that go into the cars. Note the quality. Learn here why Chalmers cars offer the utmost value for your money.

## Chalmers

Carl H. Page & Co., Broadway at 50th St.

Brooklyn: Bronx Auto Company Newark: Paddock-Zusi Motor Company  
Huntington, L. I.: Sammis & Downer Yonkers: Rose & Hibbard

AUTOMOBILES.

AUTOMOBILES.

"Firestone"  
NON-SKID TIRES

Cost  
Most  
To Build

Cost  
Least  
To Use

WHEN you get your new car, be sure it is equipped with tires which are worthy of it—which will add to its value in service and security. Study tires and their building from this standpoint—then demand the tires which fit the standard.

Guesswork need not enter into your decision. Call at the Firestone booth at the Automobile Show and get the book, "What's What in Tires," by H. S. Firestone.

The proved standard for over twelve years in tire quality and tire service is there described.

The Firestone Tire & Rubber Co.  
of New York  
1871 Broadway, New York

Distributors for  
The Firestone Tire & Rubber Co.  
Akron, Ohio  
"America's Largest Exclusive Tire and Rim Makers"



Progress. This in a word is "The Story of the Cadillac." Since the inception of the industry the Cadillac has become increasingly the criterion of excellence in practical construction. Each year the public looks to the Cadillac for that which represents the real progress in the development of the motor car; not for fads, not for features whose value ends in their utility as "talking points;" not features which are here to-day and gone to-morrow; but features which are practical and features which mark real and substantial advancement.

The Cadillac occupies the position of honor at the GARDEN SHOW