

CARE AND REPAIR OF AUTO TIRES

Firestone Expert Gives Simple Practical Suggestions on Keeping Down Cost

The car owner of to-day is fast coming to the realization that the mileage he gets from his tires depends upon the treatment they are given. Mileage is built into tires at the factory by scientific methods. The user can get every inch of that in-built mileage out of the equipment by the proper care and use of it.

The motorist ordinarily places so much confidence in tire equipment, probably because of its rapid development and wonderful performance, that it does not receive the inspection and attention considered necessary for the car. Hence the loss to the average car owner of thirty cents on every dollar spent for tires, and the opportunity for these articles, which are designed to enable every car owner, who reads them, to save his share of the \$105,000,000 wasted on tires each year.

It has been aptly said that the pneumatic tire is of the most paradoxical construction in the entire field of automobile engineering. It must be very resilient yet withstand punishment worthy of armor plate.

Two tender substances, rubber and cotton fabric must be so blended and built up that they will resist the air pressure within, the weight of the automobile and its load without, the thrust of the motor, the transverse strains on the tire and the blows of thousands of obstacles. And yet the successful construction of the tire has depended the entire success of the automobile.

While the selection of the right type and size, correct application and proper treatment of tires are all necessary to obtain the best results, the simple matter of inflation is probably the most important point in the care and use of equipment, as its abuse is the principal cause of tire wastage.

Proper Inflation Means Mileage

The judicious use of air will go a long way toward giving the tire user the maximum mileage. Because the resiliency and long-wearing qualities of a tire depend almost as much upon proper inflation as they do upon the rubber and fabric. Too much air will cause excessive vibration, traction slippage and loss of friction between various parts of the tire and cause them to break up.

There is a very definite relation between the air pressure within the tires and the load on them. The heavier weight or reduced air pressure causes more deflection of the tires, giving wider tread on the ground and increases the action on the sidewalls. This adds to the comfort of the ride as more of the road vibration is absorbed by the tires. But when soft on the tire, runs against a wave in the tread rubber, which from excessive stretching and heating pulls away and separates from the carcass or body. The sidewalls bend back and forth, back and forth millions of times as the wheels revolve and the result is the same as when a piece of wire is bent

back and forth—it becomes hot and finally breaks.

In a tire the heat from the increased action of the sidewalls of under inflated tires softens the rubber cement or adhesiveness between the fabric layers and a certain degree of devulcanization takes place. As a result, when the tire strikes a particularly hard bump, a loud explosion sends the air and it is time to put on a new casing.

Flat Tires Demand Attention

A soft or flat tire on a front wheel can always be noticed by the difficulty in steering the car in a straight course; the steering wheel naturally favors the flat or soft tire. If on a rear wheel, pounding or bumping will be noticeable.

Demountable and quick detachable rims make it possible to change tires very quickly but even if not so equipped, it is wise to stop and give the tires attention when needed. Damage to the side walls, beads, fabric inside and inner tube usually makes it difficult to execute practical repairs. A rear tire riding deflated very far may result in damage to the differential of the car.

Expansion caused by hot weather or sun is negligible and will not materially affect the tire, as the air pressure within is not increased to any appreciable degree. New tires stretch slightly when first used and inner tubes are slightly permeable to nitrogen so that occasional inflation is advisable. Deteriorating effects of air can be avoided by inflating the tires with a fresh supply at least two or three times a year.

While there can be no inflexible tables for inflation of tires as style of construction, power, speed, road conditions, driving and weight will play an important part in the strains upon tires, under ordinary circumstances the tires on the front wheels should be inflated between 15 to 18 pounds per inch of tire section and rear tires from 10 to 12 pounds.

Don't make the mistake of guessing at the inflation from appearances or striking the tires with a hammer, but use a pressure gauge, at least once a week. Another inflation warning: don't fill the tires with the exhaust from the engine as it contains under ordinary circumstances at least once a week. Another inflation warning: don't fill the tires with the exhaust from the engine as it contains under ordinary circumstances at least once a week.

The next article in this series will be on the selection of tires and an explanation of the various types. It will tell you the proper size for your car and explain the different kinds. Watch for it in next Saturday's TELEGRAPH.

Studebaker Company Builds to Extent of Two Million

The new Studebaker plants at South Bend, which represent an investment of nearly \$2,000,000, will cover more than five acres. This new construction work has advanced so far that one of the buildings is now in use. This is the new dry kiln, which is probably the largest and finest structure of its kind in the country. It is four stories high, occupying the ground space of 126x244 feet. The building itself is of reinforced concrete and cost three-quarters of a million dollars. In it Studebaker season lumber used for automobile bodies and for horse-drawn vehicles.

The other buildings now in construction are machine shop No. 72 and forge shop No. 71. The machine shop is a single-story building

57x225 feet, providing 129,600 square feet of additional machine shop space. Like the new kiln, it is built of reinforced concrete and structural steel. The forge shop is a two-story building 160x434 feet, providing 138,880 square feet of additional forge shop space. It, too, is of structural steel and concrete.

In speaking of the new building, L. J. Oller, vice-president and director of sales of the Studebaker Corporation, said: "With the government and its allies spending vast sums of money here in the United States for material of all sorts, I look for a great wave of business prosperity."

"And now that the automobile has become a virtual necessity to so many business men and a vital part of every farmer's equipment, this prosperity will undoubtedly mean a greatly increased demand for motor cars all over the country."

"It has always been an underlying Studebaker policy to keep well abreast of the times in the installation of the most modern equipment. The new buildings being erected at South Bend are simply a result of our fixed plan to always keep improving our manufacturing facilities so that our plants may constantly maintain the highest possible degree of manufacturing efficiency."

Briscoe Ploughs Through Mud With Apparent Ease

That the Briscoe "24" can get there and back under any conditions, as well as any car in the business, is the opinion of C. V. Winsett, leading physician and surgeon of Prophetstown, Ill., writing under recent date to the dealer from whom he bought the car. Dr. Winsett says in part:

"Just a few words of praise for the Briscoe '24' that you have it coming and it might interest you to know just what she really can do. I have been driving her on the roads around here several days ago. Few have attempted to go even on the best roads here. I decided to tackle it. I have been hauling out of the bottomless mud."

"At noon to-day, I received a telephone call to come 6 1/2 miles south east of here over the worst road around here. Many advised me not to try it as I would never get back. As I could not get a team from either livery barn, I decided to tackle it. Several people watched me start and one advised me again that I told them if my car would not go where any car could, I would eat it."

"I put her through 13 miles of gumbo mud with no apparent bottom. I made about 2-3 of it on middle speed and the rest on the low. I was right to the hubs nearly all the time. I was in low and had to make my own track as no car had gone through before me. I had my own track coming back and made better time. I killed considerable time on the case but in a couple of hours pulled into the garage with half the real estate of Whiteside County on my car. I would never have put my car to such a test if it had not been absolutely necessary and I am proud of the way she came through it. Some 'One Half Million Dollar Motor' alright. She sure had the power and to spare."

"If anyone asks you what the Briscoe can do in the mud, just refer them to me. I hope that I never have to put my car to such a test again, but if the time ever comes when it is necessary I will tackle it with confidence that I can make it if anybody can. It was some test and the Briscoe came through with flying colors."

MRS. ALLEN OGLE DIES

Waynesboro, Pa., July 28.—Mrs. Fannie Catherine Ogle died at her home here Thursday afternoon. She was 43 years old and was a native of Thurmont, Md. She is survived by her husband, Allen G. Ogle, and four children.

CADILLAC HEAD MAN OF ABILITY

New Manager of Big Detroit Auto Factory Has Had Broad Experience



RICHARD H. COLLINS

When it was announced recently that the Leland, father and son, had severed their connection with the Cadillac Motor Car Company, and that they were to be succeeded by R. H. Collins, there was much speculation concerning the man who is to assume the heavy responsibilities carried so long by founders of the famous Cadillac. "Who is Collins?" was asked everywhere in the industry, except by the few who knew the

story of the manufacturing and merchandising genius to whom W. C. Durant has entrusted the destinies of the Cadillac.

Mr. Collins' life history is the old familiar story of the poor boy starting out with nothing and rising step by step to the top-most rung in the ladder of success. His methods were never spectacular, but they were relentlessly certain. Rigid honesty, complete knowledge of his product, and a boundless enthusiasm for his work constitute the three cardinal principles upon which his great success has been built.

The new head of the Cadillac company began his business career with the John Deere Implement and Vehicle Company, of Moline, Illinois, with whom he continued twenty years. During most of that time he sold the Deere Company's products to dealers, and so successful were his efforts that he rose to the position of Western manager for the company, with headquarters at Kansas City. From that position he went to the Buick Motor Company as manager of the Kansas City branch and subsequently to Flint as the company's general sales manager. In that position he continued until last year when he was made assistant to President Durant of the General Motors Company.

It was while he was engaged in selling the Deere Company's product that Mr. Collins acquired his vast and intimate knowledge of the market which later were to absorb the output of motorcar manufacturers and his equally clear understanding of the men who were destined to become motorcar dealers. For years he had met these men in their own stores and homes. He spoke their language, lived their lives, and knew and sympathized with their aspirations. He early acquired his steadfast faith in the homely old principle that in manufacturing and selling goods, as in everything else, honesty is the best policy.

His belief in quality products amounts almost to a passion, and that fact, more than any other, influenced Mr. Durant to choose him as head of the Cadillac company. Mr. Durant knew that it was a product such as the Cadillac that would bring the Collins enthusiasm to its full flower. He knew that Collins

possessed exactly the right mental attitude necessary to continue and carry forward the great Cadillac ideals and traditions.

And those who know Mr. Collins feel as does Mr. Durant that Collins' traditions and policies will be safe in his hands. He believes in fine workmanship with the utmost fervor and has long expressed the conviction that the Cadillac exemplified his own ideas as to what a product of this kind should be.

Mr. Collins, like all men who achieve a big success in life, has an almost uncanny faculty of surrounding himself with good lieutenants. He seems to have a success "jinx" as is evidenced by the fact that literally dozens of men who were fortunate enough to become associated with him have acquired wealth as a result of that association. When he went to the Buick Company as General Sales Manager he made it his first duty to build up a selling organization that would extend to all parts of the country, and to-day many of the men who were included in that organization, who worked under the direction and the co-operation of Mr. Collins, are independently wealthy. The cardinal tenet in his merchandising code is that the dealers who sell his product must always be satisfied, and be more successful each year than they were the year before. If the business is to be a real success, he contends that if the dealers are prosperous, the parent business is bound to be prosperous.

"In employing men," said Mr. Collins recently, "I always make it a point to select those who have a greater knowledge in their own particular lines than I possess myself. When I get men of that kind I try my best to make them happy and contented in their work, so that the best there is in them may reach a full expression."

Mr. Collins is recognized as a most versatile man. While his greatest effort has been along merchandising lines, he has acquired a knowledge of manufacturing cars that is second only to his ability in selling them. He has always believed that if he possessed an intimate knowledge of what was going on in the factory, he could more intelligently interest his product to the buyers outside. The engineer, he holds, is

seeking to achieve precisely the same result as the salesman, namely, to create something that the customer will buy, and appreciate after the purchase, and it is a Collins cult that if the salesman thoroughly understands the engineer he will be just as successful as a salesman. He seeks always to maintain the utmost harmony and good feeling between the various units of his organization so that there may always be the maximum of team work. Men who know him well say that R. H. Collins is the easiest man to work for in the country. His enthusiasm for his work, and for any good result accomplished by his subordinates is so intense and so contagious that his men strive constantly for greater achievements, both for the pleasure of achieving, and for the pleasure, as one of them expressed it recently, of hearing R. H. say "fine and dandy."

The versatility of the new head of the Cadillac company finds its best expression in his dealings with the various types of men with whom his business brings him in contact. He can sit on a rail fence and talk politics, stock raising or intensive farming with the ruralist; he can discuss huge business affairs with the financiers; he can close an automobile sale himself and can plan world wide distribution; or he can go into the factory and grapple successfully with production problems.

Those who know Mr. Collins have expressed the opinion that it would not be possible to select a man better qualified to carry out the well-known Cadillac policies and to extend the Company's field of influence.

POSTCARD SHOWER

Shirerstown, Pa., July 28.—A postcard shower was tendered Joseph H. Clouser, who is a member of Truck Company Number 1, now camping at Mt. Gretna, by his many friends here. Prior to leaving here for Mt. Gretna, his grandmother, Mrs. Sara Clouser, entertained at dinner in his honor, at her residence in West Main street the following guests: Mr. and Mrs. William A. Clouser, Joseph H. Clouser and Mr. and Mrs. George Sadler Rupp.

SETTLING PARADE MATTERS

Lemoyne, Pa., July 28.—A meeting of the general committee in charge of Lemoyne's farewell to her soldier boys will meet in the Lemoyne firehouse next Thursday to settle up all debts incurred through holding the affair. Some of the businessmen are talking of making this committee a permanent one in order to take care of plans for similar celebration for those who are drafted or enlist in the service.

SERMON ON WAR

New Cumberland, July 28.—On Sunday evening at 7.30 o'clock, the Rev. Dr. T. S. Wilcox will preach on the subject—"Was America Justified on Entering the War?" Special music will be rendered by the choir.

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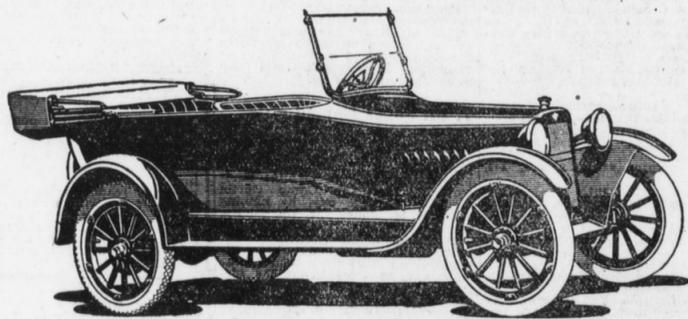
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There is no other so economical in operation.

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There is no other of more beautiful body lines or greater riding comfort.

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