

ECONOMY IN RUNNING CAR DEMANDS THAT TIRES BE CARED FOR

Variety of Ways in Which the Casings Will Fail Full Service Through Misuse.

OVERLOADING ONE FAULT

Proper Inflation of Tubes Quite Essential to Their Giving Satisfaction; Avoid Misalignment.

There is no more important question relative to the running of a motor car than the care of the tire casing, if time, expense, and trouble are to be at all considered; and it may be said that at the start that, as a general thing, there is no part of the machine which receives a little proportionate attention, says a writer in the New York Evening Post. It has been estimated that the expense of upkeep of the automobile may be divided into three equal parts, namely, fuel, including gasoline and oil; tires, including wear and tear of all the other parts of the machine put together. By this is meant that each of these three divisions, if they may be so termed, is responsible for one-third of the actual expenses of running the car. It must therefore be remembered that tires cost one-third the total expense, provided they are given proper care; if they are neglected, their cost will run far above these one-third figures. The average motorist worries a great deal as to how many miles he can get out of a gallon of gasoline, but when the figures here presented are considered, it would seem that the owner of the machine would be money in the wind, in addition to counting the miles per gallon, give the care and repair of the casing a little more attention.

Cost Mileage.

One of the big items in operation of the modern tire factory is that of making replacements—giving a new tire in the place of a worn-out one or ruined casing which when properly repaired is guaranteed for a given number of miles. Recently the managers of one of the big tire companies stated that fully 75 per cent of the tires taken out of a motorist's car are defective in some particulars are not defective at all, but have simply been subjected to some sort of abuse or misuse. Many motorists purchase casings with the feelings that if the tires do not run out the full guarantee of 3500 or 5000 miles, regardless of the treatment given on them, replacements will be made back to him as if defective in some particulars are not defective at all, but have simply been subjected to some sort of abuse or misuse. Many motorists purchase casings with the feelings that if the tires do not run out the full guarantee of 3500 or 5000 miles, regardless of the treatment given on them, replacements will be made back to him as if defective in some particulars are not defective at all, but have simply been subjected to some sort of abuse or misuse. Many motorists purchase casings with the feelings that if the tires do not run out the full guarantee of 3500 or 5000 miles, regardless of the treatment given on them, replacements will be made back to him as if defective in some particulars are not defective at all, but have simply been subjected to some sort of abuse or misuse.

Overloading and Under Inflation.

Of the many ways in which casing is subjected to abuse possibly the two most common are overloading and under-inflation, the results of which are identical. That these misuses have been given a tire is indicated either by a wavy condition of the tread, showing that the adhesive friction between the layers of the fabric have become overheated through this cause, or by bad cuts along the sidewalks or along the rim. A rim-cut tire is a sure sign of a victim to blowouts. Unquestionably there are more tires ruined on account of under-inflation than from any other one cause. This particular trouble will not only result in a run-down casing, but is also responsible for tube troubles. Common-sense will tell one that if the tire which is run soft is inflated by a curbing or stone until the tread bumps against the beading or rim, the soft inner tube within is bound to suffer. Keep the tires pumped to the pressure recommended by the manufacturer.

Tires Out of Alignment.

Another common trouble which eats up perfectly good tires is misalignment, where the wheels are not correctly lined up. In a case of this kind the tires are continually skidding, and it is this constant grinding away of the tread which causes the fabric to show through, and for the motorist as a rule to condemn the tire as well as the tire-maker. Faulty alignment usually occurs in the front wheels, and may be caused by a sharp bump of the wheels against the curbs or other obstacles. Instances have preceded.

LET US

Equip your car today with a set of these new nitrogen bulbs. They give more light and consume less current than those which you now have. We have them for all cars, all candle-powers, any base.

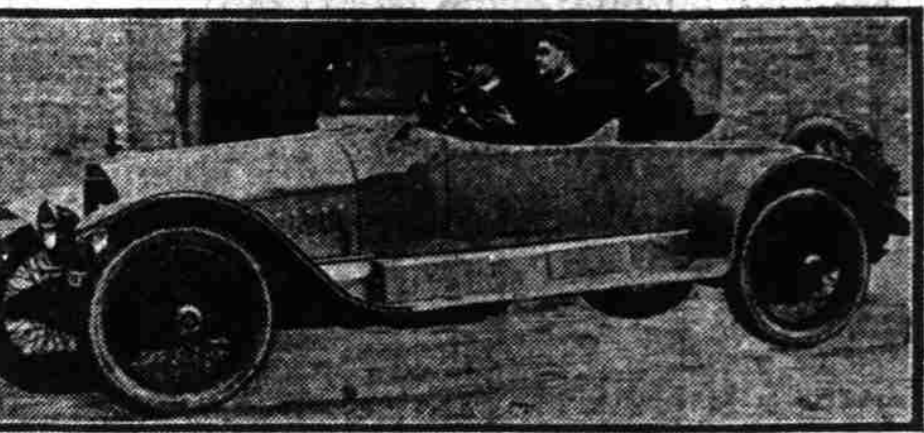
PRICES

- 21-candlepower—6-8 volts... 35c
24-candlepower—12-16 volts... 35c
36-candlepower—6-8 volts... 75c
40-candlepower—12-16 volts... 75c
Other sizes in proportion.

While you are overhauling that car of yours, drop in and let us show you our line of ignition and lighting cables, switches, dash lamps and other lighting equipment. Our stock is complete.

STUBBS ELECTRIC CO Sixth at Pine—Both Phones

OWEN MAGNETIC IS HERE



A. E. Foss at the wheel of the new Owen Magnetic car, which employs new principles. Mr. Foss has taken on the local agency for the line.

Imagine taking an automobile up the Hill street hill, getting it to stand still on the steepest part, and then moving it either up or down the hill by just leaning your hand against it. There is a car in Portland now that demonstrated this feat last week. It is the Owen magnetic, and will be handled in Portland by the Gibson Electric Garage & Storage Battery Co. of which A. E. Foss is the head. Mr. Foss predicts that in a very short time there will be any number of cars employing the magnetic type of transmission, for this factory today cannot meet the demand. The result of many experiments led to the Owen magnetic. The biggest thing about it is the positive, yet easy control in the thickest traffic or on the steepest hills. The car was brought to Portland by H. F. Clarrage, of the California agency. It looks much like the ordinary type of gasoline car. The body brought to Portland is a four passenger roadster, which slopes from the windshield back. The radiator and all outward appearances are the same. Under the hood it looks little different from others, however. There is no clutch pedal and no gear shift lever.

settled themselves where, on account of faulty alignment, a tire has been worn so badly as to be ruined within a distance of 50 miles. The act of lining up the wheels is not a difficult one if the motorist has the knack, but if he does not know how, the car should be taken to some experienced repairman and the work done right. As a rule when the front tire is affected the rear tires will show damaging results, although very often only one tire is affected. Improper adjustment of the steering apparatus or a bent knuckle or axle will cause this trouble. It is to be assumed that all cars are received from the manufacturer in perfect alignment, but after being run a while the steering gear neglected, it looks very apt to become affected. Neglect to properly repair cuts in casing will eventually lead to blow-outs. When the driver finds, after a trip, that one of the casings has been cut through the tread by a piece of glass or other sharp article he should immediately repair the injury with some plastic compound.

Avoid Bumps and Curbs.

Another source of trouble in running in car tracks or ruts, as well as running the tires against the sides of curbs. The result of this carelessness is the wearing of the rubber from the wall of the tire, thereby exposing the fabric. This little example will illustrate. If a person were to walk down the street, taking each step so close to the curbing as to allow the upper of the shoe to drag against the curb, how long would it be before the upper

DRISCOE \$685 The Car With The Nail Million Dollar Motor. Includes a large illustration of the Driscoe car and a list of prices for different models.

YOU WILL LIKE THE DRISCOE. Progress Character Message. THE Briscoe at \$685 we believe is the best looking, the sweetest running automobile ever built at the price. Increased production has lowered costs, provided more refinements. TOURING car has surprising roominess—try it! Four-passenger roadster is the only car built with a full back to the front seat—a novelty—see it! Briscoe-built in Briscoe factories insures quality in every detail. YOU will miss the real meaning the show holds for you if you fail to see the beautiful, handsomely finished and completely equipped 1917 Briscoe models.

MULTNOMAH COUNTY SPENT LESS ON ROADS THAN SUM IN HAND

Roadmaster Yeon's Report Shows \$31,166.35 Less Than Available Was Used.

\$485,790 FOR YEAR 1917

The Budget Is Expected to Provide \$394,940 and Automobile Licenses and Delinquent Taxes \$78,000.

The annual report of Roadmaster Yeon shows that during the year 1916 Multnomah county expended out of the general road fund the sum of \$691,222.87, or \$31,166.35 less than the amount available. The amount available for the current year is \$485,790, of which the budget will provide \$394,940, and automobile licenses approximately \$45,000. From delinquent taxes \$33,000 will be received. The remainder will come from other sources. On the Columbia river highway there was spent \$70,421.06.

Statement of Ostlay.

Segregated by items, the expenditures were as follows: Fencing, \$2,768.55; widening pavement, \$15,522.36; figure eight, \$691.77; curbs and gutters, \$606.45; grade widening, \$2041.38; parking grounds, \$959.25; maintenance and various, \$18,731.45; widening rock cut Shepperd's Dell, \$164.85.

Critical Buyer of Auto Is the Woman

The woman is the critical automobile buyer today, says W. E. Stalnaker. She enters into the purchase of a motor car more than ever before. A woman appreciates comfort in a motor car, whether she drives it or simply rides in it. Physical comfort is experienced in a car which rides and steers easily, has well designed seats, affords good weather protection, and on which the unavoidable jobs that have to be done on a car once in awhile, such as tire changing, raising and lowering of the top, adjusting of the windshield, oiling, etc., are made as easy and pleasant as possible.

Haskell Road Will Cost \$4000 a Mile

Tahlequah, Okla., Dec. 30.—(U. P.)—Construction work on 26 miles of modern highway that ex-Governor Charles N. Haskell will present to Wagoner and Cherokee counties as a monument to his name, has begun. The road will cost \$104,000, or \$4000 a mile, and Governor Haskell will personally every cent of expense.

CONSIDERATION DUE THE WEIGHT OF CAR

J. C. Braly, who will exhibit both the Scripps-Booth and the Franklin in the big show at the Armory, raises this point in connection with the specifications and weights of modern motor cars. He asks: "Why is it necessary for a vehicle which, for instance, carries five passengers (equivalent to a load of 750 pounds), to weight in, a great many cases, from 8000 to 9000 pounds? It is significant that only a few months ago a widely known automobile engineer raised the same question in a discussion of weight. 'Motorcycles and buggies,' he pointed out, weigh very little more than their maximum loads. When will we get automobiles more closely approaching this ratio? Other vehicles went through this improvement from heavy to light with great gain. There is no reason why the same transformation is not applicable to automobiles."

NATIONAL PARKS ARE NOW REAL MAGNETS IN 'SEEING AMERICA FIRST'

Policy Pursued in Developing Their Scenic Assets Is Bringing Good Returns.

NATION'S PLAYGROUNDS

Washington, Jan. 20.—That the national parks are now real magnets which induce Americans to become acquainted with their own country, was particularly accentuated on "Motoring Day" of the Washington conference conducted by the department of the interior. At the request of Secretary Franklin K. Lane, the American Automobile association took in hand this phase of the week's sessions, which covered every possible angle of national parks management and progress. Motoring Proposition. It was to be expected that the A. A. A. officers, headed by President H. M. Rows, would put forward the motoring proposition as second to no other in the enlarging use of the nation's playgrounds. In his introductory talk, President Rows thus referred to our general tardiness in parks preparedness: "The parks have not been ready to be seen, and the preparation for it has been intermittent and haphazard and the help from congress frequently has been given grudgingly. But with the coming of Mr. Lane in the department of the interior and his excellent selection of Mr. Mather as his assistant and in direct charge of the national parks, there has come a wholesome and invigorating change in the policy pursued toward improving the facilities for seeing and enjoying our wonderful scenic assets."

Must Be Seen From Ground.

"No matter by what route we arrive, however, our national parks must be viewed from the ground to be appreciated. The giant Sequoia, when viewed from on high, will be more impressive than the modest shrub; and the Grand Canyon of the Colorado will flatten out almost to a plain. Though the winding river will be seen winding its tortuous way in a mass of variegated colors, the grandeur of the gorge in size and sculpture will be gone."

Chairman Diehl of the A. A. A. good roads board contended that main roads in the several states which possess the parks should be connected in such manner as to bring about the early putting together of what is known as the park-to-park highway, a pioneer sponsor of which is Gus Holms of Cody,

Disposition of Road Bond Fund Itemized

The final account of the special road fund created by the \$1,250,000 county bond issue of 1914 shows that there is now in the fund a balance of \$503.93, after the roads have been hard surfaced. The total amount made available through the bond issue was \$1,281,242.02. The total expenditures summed up \$1,280,745.08. The roads paved and the amount spent on each one follow: Columbia river highway, \$480,885.39; Sandy road, \$243,484.53; Base Line road, \$154,617.49; Powell Valley road, \$117,956.82; Foster road, \$77,847.04; Capital highway, \$77,120.63; Canyon road, \$32,940.08; St. Helens road, \$70,944.11. The cost of engineering and superintendence was \$22,222.82. For supplies and miscellaneous, \$1532.25 was spent.

Get Careless.

From the Official Report: "A man who never made a mistake never made anything," said the Wise One.

SAFETY FIRST!

Also At Your Dealer's. Includes an illustration of a car and text about safety and auto lenses.

JOURNAL'S AUTO DIRECTORY

- H. L. KEATS AUTO CO., Broadway at Burnside, Broadway 5368
Chalmers See the Chandler Four-Passenger Roadster
Chandler GERLINGER MOTOR CAR CO., 363 Oregon Street, East End of Steel Bridge
Edwards' Tire Shop The workmanship of the better kind goes into repair job that's left with us. We sell Goodyear and other standard makes tires. EDWARDS' TIRE SHOP, 321 Ankeny, Broadway 1034, A-1133
"Exide" BATTERIES Oregon Distributors—FREE Battery Service STORAGE BATTERY CO., 348 Conch Street, Phone Broadway 3042, A-3348
Fords FORDS—1917 models. Easy terms, \$168.70 down, balance \$26 per month. Trade in your old Ford. Ford Service Dept. never closed. Phone for Service Car. 704 Kearney St. PALACE GARAGE CO., Main 90, A-2442
Francis Motor Car Exchange Phone E. 1199—E. 13th at Hawthorne
Garford Motor Truck Sales Company 522 ALDER STREET, PORTLAND, OREGON. A complete line of motor trucks made from the best material obtainable and backed by reputation, resources and facilities.
Grant Six Astonishingly high quality at an astonishingly low price. MANLEY AUTO CO., 11th and Oak at Burnside, Broadway 217.
Hudson Super Six—The car with the greatest records. BOSS & PEAKE AUTOMOBILE COMPANY, 615-617 Washington Street
Hupmobile Throttles to a man's walking pace on high gear, picks up without gear change, instantly and smoothly. MANLEY AUTO CO., 11th and Oak at Burnside, Broadway 217.
GMC Trucks 3/4, 1 1/2, 2, 3 1/2 and 5 Ton The Standard of Portland Business Houses. Columbia Carriage & Auto Works, 909 FRONT STREET.
Maxwell Economy records, non-stop records and smallest ton capacity. BOSS & PEAKE AUTOMOBILE COMPANY, 615-617 Washington Street
Oldsmobile Distinctive High Grade. Light Weight. OLDSMOBILE CO. OF OREGON, 58-60 N. 23d Street, Phone Main 1640
Oakland OREGON OAKLAND MOTOR COMPANY, Wholesale OAKLAND AUTO SALES COMPANY, Retail, 522 Alder St. at Sixteenth, Main 414
Republic \$875 \$1225 \$1425 \$1825 \$2750 Prices Delivered at Portland ROBERTS MOTOR CAR CO., Park and Finnans Sts.
Trucks Moreland Distillate, 3/4 ton to 5 ton. Vim Delivery 1/2 ton capacity. McCRAKEN MOTOR COMPANY, Main 9019, 445 Stark Street
Velic The Biltwell Series represents the latest and best in motor cars. New value at medium prices. D. C. WARREN MOTOR CAR CO., 58-60 N. 23d Street, Phone Main 780
VULCANIZING Let us do your tire repairing. All our work is absolutely guaranteed. Our pieces are always right. We sell all leading brands of tires and tubes, gasoline, oil, and tire sundries. GLEN VULCANIZING CO., 34 Third St., Phone Broadway 476.
White Pleasure Cars and Motor Trucks — The White Company, Park and Couch Streets



Weather or No Starting and lighting a motor car is hard work for a battery, especially when your motor is cold and stiff. Whatever your driving conditions, now's the time to be more careful than ever. Pure water, regular inspection, and a knowledge of your electrical system are necessities in any climate. Expert Willard Service is a winter-worry preventive. We'll tell you how to keep your battery in proper condition and give you a booklet on winter care.

Auto Electric Equipment Co. Sixth and Burnside Streets. We'll be glad to test your battery at any time. Willard Storage Batteries are for sale by car dealers, garages and all Willard Service Stations and Factory Branches.

Willard STORAGE BATTERY. Says Little Ampere: Your storage battery doesn't need a fur overcoat if you take the advice of a Willard-trained expert.

SAFETY FIRST! All possible light without glare. Includes an illustration of a car and text about safety and auto lenses.

JOURNAL'S AUTO DIRECTORY. H. L. KEATS AUTO CO., Broadway at Burnside, Broadway 5368. Chalmers See the Chandler Four-Passenger Roadster. Chandler GERLINGER MOTOR CAR CO., 363 Oregon Street, East End of Steel Bridge. Edwards' Tire Shop The workmanship of the better kind goes into repair job that's left with us. We sell Goodyear and other standard makes tires. EDWARDS' TIRE SHOP, 321 Ankeny, Broadway 1034, A-1133. "Exide" BATTERIES Oregon Distributors—FREE Battery Service STORAGE BATTERY CO., 348 Conch Street, Phone Broadway 3042, A-3348. Fords FORDS—1917 models. Easy terms, \$168.70 down, balance \$26 per month. Trade in your old Ford. Ford Service Dept. never closed. Phone for Service Car. 704 Kearney St. PALACE GARAGE CO., Main 90, A-2442. Francis Motor Car Exchange Phone E. 1199—E. 13th at Hawthorne. Garford Motor Truck Sales Company 522 ALDER STREET, PORTLAND, OREGON. A complete line of motor trucks made from the best material obtainable and backed by reputation, resources and facilities. Grant Six Astonishingly high quality at an astonishingly low price. MANLEY AUTO CO., 11th and Oak at Burnside, Broadway 217. Hudson Super Six—The car with the greatest records. BOSS & PEAKE AUTOMOBILE COMPANY, 615-617 Washington Street. Hupmobile Throttles to a man's walking pace on high gear, picks up without gear change, instantly and smoothly. MANLEY AUTO CO., 11th and Oak at Burnside, Broadway 217. GMC Trucks 3/4, 1 1/2, 2, 3 1/2 and 5 Ton The Standard of Portland Business Houses. Columbia Carriage & Auto Works, 909 FRONT STREET. Maxwell Economy records, non-stop records and smallest ton capacity. BOSS & PEAKE AUTOMOBILE COMPANY, 615-617 Washington Street. Oldsmobile Distinctive High Grade. Light Weight. OLDSMOBILE CO. OF OREGON, 58-60 N. 23d Street, Phone Main 1640. Oakland OREGON OAKLAND MOTOR COMPANY, Wholesale OAKLAND AUTO SALES COMPANY, Retail, 522 Alder St. at Sixteenth, Main 414. Republic \$875 \$1225 \$1425 \$1825 \$2750 Prices Delivered at Portland ROBERTS MOTOR CAR CO., Park and Finnans Sts. Trucks Moreland Distillate, 3/4 ton to 5 ton. Vim Delivery 1/2 ton capacity. McCRAKEN MOTOR COMPANY, Main 9019, 445 Stark Street. Velic The Biltwell Series represents the latest and best in motor cars. New value at medium prices. D. C. WARREN MOTOR CAR CO., 58-60 N. 23d Street, Phone Main 780. VULCANIZING Let us do your tire repairing. All our work is absolutely guaranteed. Our pieces are always right. We sell all leading brands of tires and tubes, gasoline, oil, and tire sundries. GLEN VULCANIZING CO., 34 Third St., Phone Broadway 476. White Pleasure Cars and Motor Trucks — The White Company, Park and Couch Streets