

ECONOMY IN THE USE OF GAS

Expert Tells How Automobile Fuel May Be Saved.

NEEDLE VALVE IS IMPORTANT

Small Leaks Cause Big Loss of Gasoline—Carburetor Has a Great Deal to Do with Consumption.

"Economic operation with a six-cylinder car, or in fact any car, may be said to be attained when about fourteen miles on one gallon of gasoline is the average over a fairly long period in the use of that car," says Arthur Holmes, chief engineer of the H. H. Franklin Manufacturing company.

"Gasoline economy is but one of the many economies that can and should be worked for on a car. It is possible but very seldom obtained by the average man, no matter what car he owns. This merely indicates that he has not the knowledge of the different things that go to make up economical use of gasoline.

"In general, if one understood the combustion of fuel in the cylinder, he would have all that is necessary to understand economical operation. He should know that a certain amount of fuel, and this will practically in every case be gasoline, requires air mixed with it in order to have it burn and thus produce power.

It is necessary that it should have the correct amount of air, although a little excess of air does very little harm. It is necessary in order to have economical operation that each cylinder have a correct mixture, and this problem is one of distribution. If a perfect mixture were made in the carburetor, distribution would be easy, but in general today it is a mechanical mixture of gasoline and air, and the correct distribution of this is not easy.

"Ignition is another feature of gasoline economy, and ignition should always be at a point that would give maximum power.

Driving Important.

"How a man should drive is important. If the operator holds out his clutch when going down a hill, and allows the engine to run under its own power, he is needlessly using gasoline. If he holds out the clutch when he is slowing up the car, instead of closing the throttle, he is needlessly using gasoline. In fact every time that the brakes are used on the car and the throttle not closed, and this can happen by holding out the clutch and leaving the throttle open, he is wasting gasoline.

"The average man does not realize the importance of the needle valve. In all cases, this valve should be adjusted to the minimum possible and still have good operation. Adjusting this needle valve to the minimum really means getting the right proportion of gasoline and air, and today even in warm weather, the gasoline is so hard to vaporize that it is absolutely necessary to use the needle valve under several different adjustments when starting up, and until the engine is well warmed up. In the winter time the valve may be opened up to twice its regular opening in order to get good operation when everything is cold. It is very likely that if the needle valve is not closed down and the motor warms up, from two to three times as much gasoline is used as is necessary.

"Another big source of gasoline loss

is in small leaks. Very frequently the gasoline valve or some of the unions leak just a drop now and then, but inasmuch as this is going on for 24 hours a day, it amounts to a great deal. For this reason all such places should be examined at regular intervals to note their condition.

"Naturally the carburetor has a good deal to do with the gasoline consumption, but with a standard carburetor there is not a great deal of difference in its use of gasoline. But there are quite a few things about a carburetor that can produce economical operation, such as leaks in the float or air leaks around the carburetor, and for that reason it is very desirable to give this part enough attention to know that it is clean and in good operating condition.

"Touring in the country gives the best possible chance for economical operation, as it allows the motor to be used at a more economical point in its power. At the same time, driving at high speed in the country does not give economical operation as far as gasoline is concerned, because the wind resistance increases so fast that the amount of gasoline used in covering any particular mileage is very much greater than if that same mileage was covered at a slower speed. Probably 20 miles per hour represents the best speed for economical operation."

TROUBLE AUTO TRUCK HURRIES TO THE RESCUE

Detroit pedestrians who have inadvertently wandered along the populated streets instead of keeping to the safer suburban districts, have recently discovered that the art of tree climbing is hardly a thing to have around the house. For ever and again they have been startled out of their philosophical reveries by a sudden and noisy apparition that has approached with the speed, apparently, of the Twentieth Century Limited and all the indifference of an intoxicated individual who cares not whether he takes the sidewalk or the street.

The apparition in question is nothing more than the latest development in "trouble wagons" as applied to the equipment of a street railway company and when it rushes by nonchalantly hurdling a curb to take a more easy riding sidewalk for a block or two, the pedestrian from his safe perch on the lower limb of a handy tree now realizes there is something doing down the line in the way of a fire, a derailed street car, or, maybe, a serious accident to some unfortunate who has fallen beneath the wheel of a heavy car.

AN INTERESTING MOTOR EXPERIMENT IN OMAHA

As an instance of the precision with which motor car makers are constructing their engines these days, so that they run with the minimum of vibration, an interesting little fact was brought to light in the garage of the local Midland Motor company's representative yesterday.

An ordinary pencil was stood on end on top of the engine of a six-cylinder Midland car and the speed of the motor increased from 175 revolutions per minute to over 2,000 revolutions per minute without causing sufficient vibration to jar or shake the pencil from its upright position.

Eight Automobiles For the Montreal Fire Department

Montreal, Canada, has appropriated funds and awarded a contract for the purchase of eight high-powered automobiles for the use of the deputy fire chiefs of the city. The Cadillac Motor Car company was awarded the contract for four of the machines and the Abbott Motor company the contract for the others.

The eight cars for Montreal are to be of the fifty-horsepower artillery roadster type and are to be painted fire red, trimmed in gold, and are to meet a test requirement providing for a speed of forty-eight miles per hour when fully equipped for duty, and are required to climb the hill through the main thoroughfare of the McGill university of Montreal, which is considered a very severe test for an automobile, on high gear. Both companies have cars already in official service in Montreal and have made preliminary tests to the satisfaction of the city officials.

GOOD CARS NOT RAVENOUS CONSUMERS OF GASOLINE

The rapid development of the motor car in the last few years has brought about a surprising number of improvements and refinements that have greatly increased the reliability, the simplicity of operation. But one of the most important results attained in this steady march to perfection is reduction in cost of maintenance. In the early days of the industry there was an impression prevailing that the pleasure car was a luxury that few could afford because, for one reason, an automobile consumed an unconscionable quantity of gasoline and oil. The situation whether based on fact or not, suggested the king with the elephant on his hands, the beast eating him out of house and home.

There can be no misapprehension on this point today because the well made car is not a ravenous consumer of fuel. Its appetite has steadily decreased until it is now reasonably proportionate to the amount of power demanded.

WATER KEPT AWAY WHEN TIRES ARE BEING MADE

When water works its way beneath the tread and breaker strip and into the carcass of a tire premature deterioration is certain to follow.

"In building up the carcass of a tire out of frictioned fabric, which means heavy cotton cloth impregnated with rubber, we are extremely careful to use only thoroughly dry material," says C. B. Whiteley, superintendent of the United States Tire company's Hartford factory.

Joplin Man Wins Bet.

In a veteran Studebaker car that had been driven more than 60,000 miles, E. D. Hopper made a privately conducted reliability run from his home in Joplin, Mo., to Detroit and is now on his way back. The trip won a big wager for Mr. Hopper, as the car required neither repairs nor adjustments between Joplin and Detroit. Three observers were carried, one of whom was the stakeholder.



Good Sound Reasons Why Your Choice Should Be a Cadillac.

- A car that is MANUFACTURED and not merely an assembly of components.
- A car whose make is one of reputation and of stability.
- A car whose parts are thoroughly standardized and thoroughly interchangeable.
- A car of unsurpassed mechanical accuracy.
- A car of dependability and of durability.
- A car possessing a factor of safety so liberal that it withstands far more than should be expected of any car.
- A car of luxury, a car of comfort, a car of convenience.
- A car of elegance and of refinement.
- A car simple and of easy operation.
- A car of minimum depreciation and of maximum value as a used product.
- A car with which there is obtainable a real "service", both from the maker and from the dealer.
- A car which offers the maximum efficient service for the maximum time at the minimum cost.
- A car which is "Different" and which by reason of the "differences" commands a position uniquely its own.
- A car whose merit is not confined to one or a limited few "talking points", but rather a car of super-excellence in its entirety.
- A car which will uphold in abundant measure the wisdom of those who have honored it with their seals of approval.
- A car whose distinctive characteristics are obtainable only in the Cadillac itself.

A car represented by an organization that can give you SERVICE.

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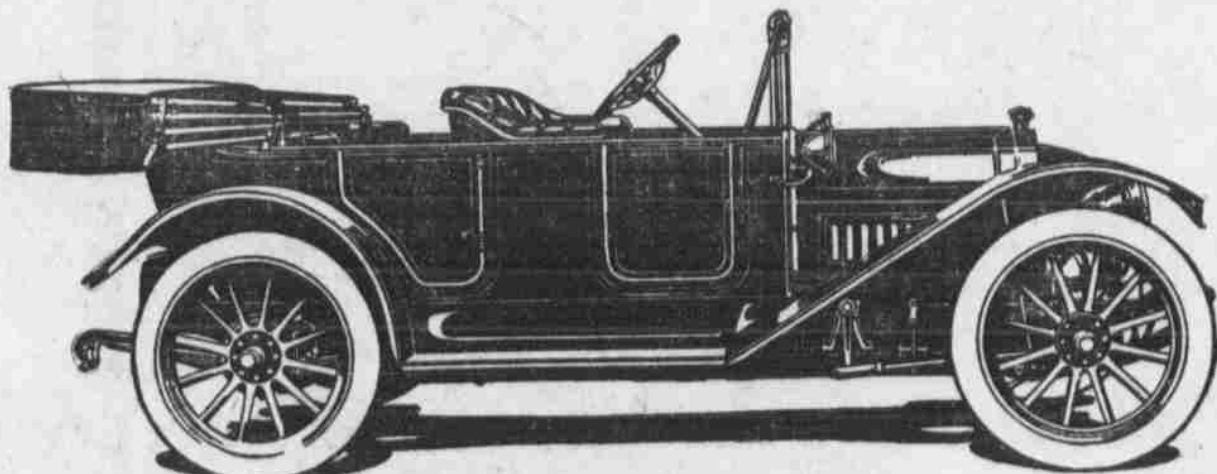
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Announcement

OUR friends and patrons are invited to visit our new showroom, located in the heart of the New Automobile District on West Farnam street. We have just received shipments of both Abbott-Detroit and National automobiles and we invite your inspection of these famous cars.

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