

Hints for the Motorist

By Albert L. Clough
Editor Motor Service Bureau, Review of Reviews

EXTRA LUBRICATION BY MIXTURE METHODS

H. R. J. writes: Before laying up my car, I had new piston rings put in and have been advised that, when placing it in service again, I add about a pint of oil to each five gallons of gasoline put into the tank to furnish extra lubrication for the rings while they were working in. What result will this have and will it affect the gasoline?

Answer: This is a good idea, as small amount of oil is brought in with the fuel mixture and deposited upon the upper part of the cylinder walls, which the splash lubrication from the crank case may not reach effectively. In case the rings are excessively tight, it will reduce the danger of the new rings scoring the cylinder walls. Before starting the engine, it will be well to inject a little oil on top of each piston through a valve cap or spark-plug opening. We think you will find that the oil mixture has no troublesome effect upon the gasoline.

Answer: Take a piece of rubber tubing or hose and insert one end well into the crank-case breather or oil filler opening. Remove all spark-plugs except that of the cylinder being tested and have this cylinder cranked over compression, while someone listens at the free end of the rubber tube. If the rings leak, you should hear a hissing escape of air in the crank-case. By inserting the listening tube into the carburetor air intake and cranking the cylinder over, the blow back of air through a leaking inlet valve can usually be perceived, but without disturbing the piping, this test cannot be applied to the exhaust valve. If you have disturbed the push-rod adjustments, perhaps some of them may be so close as to hold their valves open. Look out for particles of carbon on the valve seats and remember that unless oil has fully worked in under the valves leak?

GASOLINE SAVING DEVICES

If All Economy Claims Were True, One Could "Run On The Smell Of The Can."

The purpose of this article is to review the various classes of devices the object of which, wholly or in part, is the saving of fuel, and to make a few remarks concerning each. Since the prices of gasoline have risen to its present high level such devices have multiplied rapidly, have attracted increased notice from motorists and are the subject of many inquiries.

Auxiliary air devices: These are of two general types, the automatic, typified by the spring controlled, suction operated arrangements, designed for insertion into or connection to the intake manifold and known as manifold plugs and by many special trade names, and the hand operated manifold air intake, with needle-valve control, frequently combined and a water injection and priming device. Instruments of both these classes often give flattering results when used with a carburetor that delivers an overrich mixture but, as those of the first mentioned class work upon the compensating carburetor principle, is hardly to be expected that they will accomplish any economy that a good, well adjusted carburetor cannot. Devices of the second class can be made to effect a fuel saving by producing a leaner mixture than the carburetor can judiciously be adjusted to deliver when a car is speeding on the level and a weak mixture can profitably be used. However, hand mixture regulation is something that few motorists desire to burden themselves with

and such devices generally soon become neglected.

Water vapor devices: The fuel saving value of these is hardly established but in so far as they prevent preignition due to carbon deposits or other causes, they assist in fuel savings.

Homogenizing devices: These consist of wire gauze cones or rotating fans, inserted in the path of the incoming charges, designed to break up gasoline entering in the liquid state and thus to prevent manifold loading. They are of some value, especially when the gauze is so arranged as to conduct heat into the mixture.

Liquor or solid substances designed to be added to the fuel in the tank: The merit of the tablets included in the class is extremely problematical and, generally speaking, even soluble solids are rather objectionable in a gasoline tank. Liquid gasoline "dope," if it contains lubricating oil, may save a little fuel by reducing engine friction. One inherent trouble with such preparations is that their use is too troublesome to be long persisted in except by the most "long suffering" motorists.

RENOVATING CARS

M. S. asks: Is it profitable to have two old casings sewed together to make a new tire? There are parties that claim great things for this process.

Answer: We doubt it, the following being some of the objections which we have heard raised against the process: The result is a very thick, stiff shoe and one with too thick a wall, can hardly bend adequately to absorb road irregularities without fabric breakage, which shortly leads to a blowout. Such a thick stiff casing makes a car ride hard, heats to such an extent as to destroy the tube prematurely and absorbs excessive power. Being built up of fabric, presumably already considerably deteriorated, it has less strength than might be supposed. As this process is sometimes carried out, the outside fabric is not carried to the head and side wall blowouts—very common with all castings—are likely to occur very early.

INSTALLING SPOT LIGHT

T. W. F. asks: How can I wire in a spot light to be operated from the Ford magneto? Will its use reduce the driving power of the engine and the brilliancy of the headlights?

Answer: One of the back terminals of the regular lighting switch is connected direct to the magneto. From this terminal, run a wire to one connection of your spot light switch and from the other spot light switch terminal to one connection of

the spot light socket, then connect the other wire of the spot light to ground, by clamping its end under a frame nut or other convenient metal part of the chassis. If you spot light bulb is now seriously disturbed ignition or the regular lighting, on a car which has the large magneto. Spot lights should be burned only when really necessary. Many automobile laws are very strict as to their use.

TIRE INFLATION QUERY

S. B. asks: Is there any different effect produced upon tires, whether moist or dry air is used in inflating them?

Answer: Practically speaking there is none.

GASOLINE SAVING DEVICES

Special ignition devices: This class includes magnetos and battery systems claimed to produce extra hot sparks, spark-plugs with numerous, peculiar points, two plugs in series in the same cylinder and the like. Modern cars are all equipped with adequate ignition systems and it has yet to be demonstrated that the fuel efficiency from a spark is in proportion to the electrical energy it contains, or that there is anything better than the conventional form of spark-plug. Twin sparks may effect gasoline economy in large, T head cylinders, but their advantage in small, modern engines is questionable.

Piston rings: Numerous forms are upon the market, which are claimed to produce exceptional piston tightness. As this is absolutely essential to fuel efficiency, especially at low engine speeds, they are of value in proportion as they perform their function and secure a more perfect retention of compression.

Water temperature controlling devices: These may be automatic thermostats, acting to regulate the jacket temperature to a fixed point or manually operated shutters or curtains over the radiator front. As a very considerable loss of fuel, particularly at starting and in cold weather, can be avoided by the prompt realization of a suitable cylinder wall temperature, these devices are of great value. The automatic type has the advantage of requiring no attention from the operator, but both types are capable of noticeably increasing fuel efficiency by insuring better vaporization.

Heated manifolds: Here are included bucketed intakes with separate exhaust manifolds cast together or so that they have a hot spot in common. Most recent cars are equipped with these, but old cars are not and the latter require the application of heat to the intake system, in order that sufficient vaporization may be attained as to lead to reasonable fuel economy. This is a very useful class of fuel saver.

New carburetors: Carburetor construction aims to keep pace with changes in fuel quality and the latest carburetors handle heavy fuel better than the older ones. One of the late design often improves engine efficiency but, as the carburetor is a fuel measuring rather than a fuel vaporizing device, it is hardly worth while to install one on an insufficiently heated intake system.

Hot air collecting devices and dashboard mixture adjustments: Every engine should be fitted with these, if gasoline saving is a consideration.

HILLS TOO STEEP FOR GRAVITY FUEL FEED

A. P. J. writes: My Ford Sedan will not climb some of the steepest hills in this city. After its stalling on one of these, I disconnected the gasoline pipe at the carburetor and found that I had to lower the detached end three inches below its point of connection before gasoline would flow from it, although there were nearly five gallons of fuel in the tank. How can I remove this difficulty?

Answer: The fuel flow on these closed cars fails, on sharp up grades, with a larger amount of gasoline in the tank, than does that on the open models, because the tank of the closed models is of a somewhat flat form, while that of the open cars is cylindrical. Installing a vacuum fuel feed system is the remedy for your trouble and we are quite sure that some of the manufacturers of these devices can furnish you with such apparatus, with special fittings for mounting the tank. Some users have attached to Ford fuel tanks, apparatus for creating a temporary pressure feed, consisting of a hand-operated air pump, delivering into the top of the tank, a gasket under the filler cap to make it air tight and means for venting the tank pressure is not being used. We recommend the vacuum feed arrangement rather than this.

Yesterday a good Maxwell —Today a Better One



More miles per gallon
More miles on tires

THAT is the policy of the Maxwell Motor Company.

It began five years ago on a single chassis plan and today 300,000 Maxwells have been built on this program.

Not 300,000 Maxwells identically alike—for that would be admitting that the car has never improved in five years' time.

More than 1000 refinements have been made in the Maxwell.

But the original chassis plan was not changed. It has simply grown better as the days went by.

The logic of building one thing and thus building it well is too clear, too sound, too emphatic in results to argue against.

Like any fine piece of machinery the Maxwell seems to improve with age.

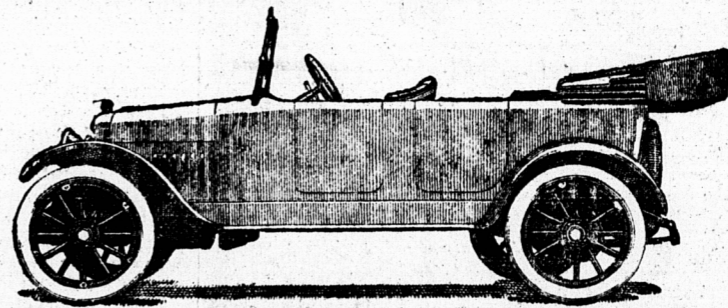
It runs on and on without end. We have never heard of a Maxwell salvaged.

There is no car with a better road ability record. And it saves many a thrifty dollar by shying at the repair shop.

This Maxwell you see today is not a new Maxwell; though many persons have thought so. It has been so much improved in appearance that our contemporaries in the trade repeatedly refer to it as the new Maxwell.

However, good looks have not in any way handicapped its running. And the latter is the main thing, after all, in a motor car.

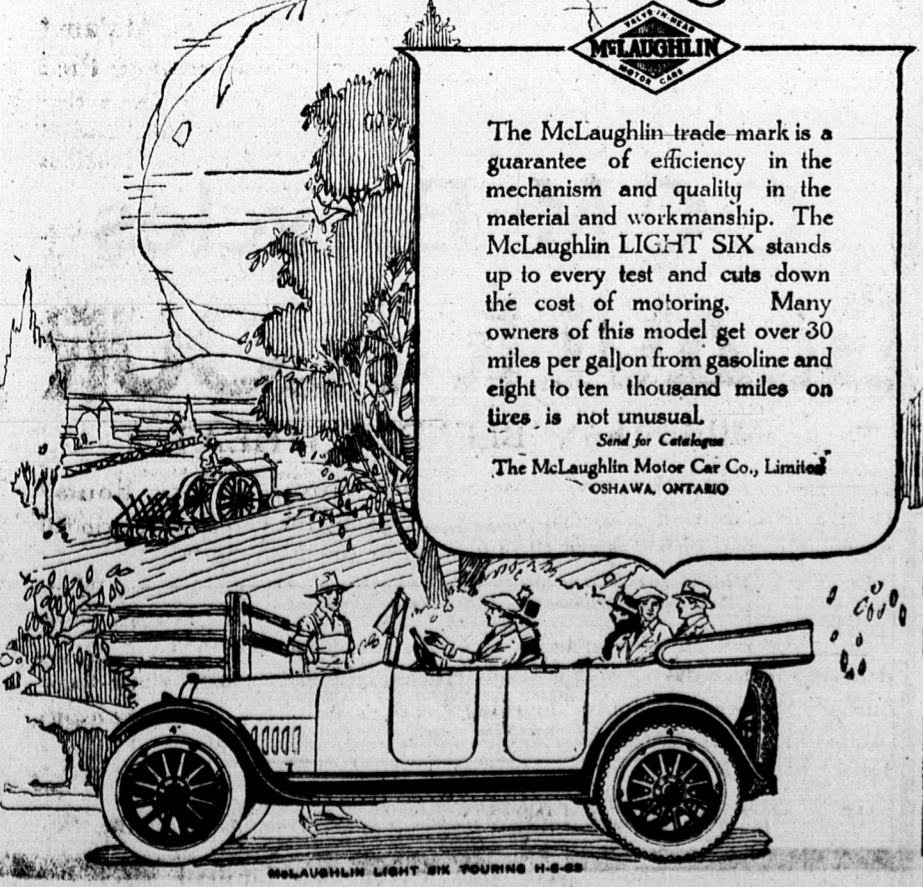
THE MAXWELL MOTOR CO. OF CANADA, Limited, WINDSOR, Ont.



GAUDET & GRANT, Charlottetown, P. E. I.

Distributors for P. E. Island.

The Light Six A GENUINE McLAUGHLIN CAR



The McLaughlin trade mark is a guarantee of efficiency in the mechanism and quality in the material and workmanship. The McLaughlin LIGHT SIX stands up to every test and cuts down the cost of motoring. Many owners of this model get over 30 miles per gallon from gasoline and eight to ten thousand miles on tires is not unusual.

Send for Catalogue
The McLaughlin Motor Car Co., Limited
OSHAWA, ONTARIO

McLAUGHLIN LIGHT SIX TOURING H-8-22

A HORNE & Co., Sales Agents

G. R. McQUARRIE, Sub. Dealer, Prince Co.

See the new McLaughlin Models at the local show rooms

J. STANLEY WEDLOCK General Dealer, Charlottetown, P. E. I.

Balanced Value

Value, as represented in Gray Dort Motor Cars, is a union of good qualities.

Strength that means faithful service, free from trouble, yet sacrificing nothing of the *lightness* so essential to economy. **Beauty** unquestionable, that yet allows for every essential of good engineering. **Comfort**, too, both in riding and driving. And then a price kept surprisingly low by factory efficiency and big production.

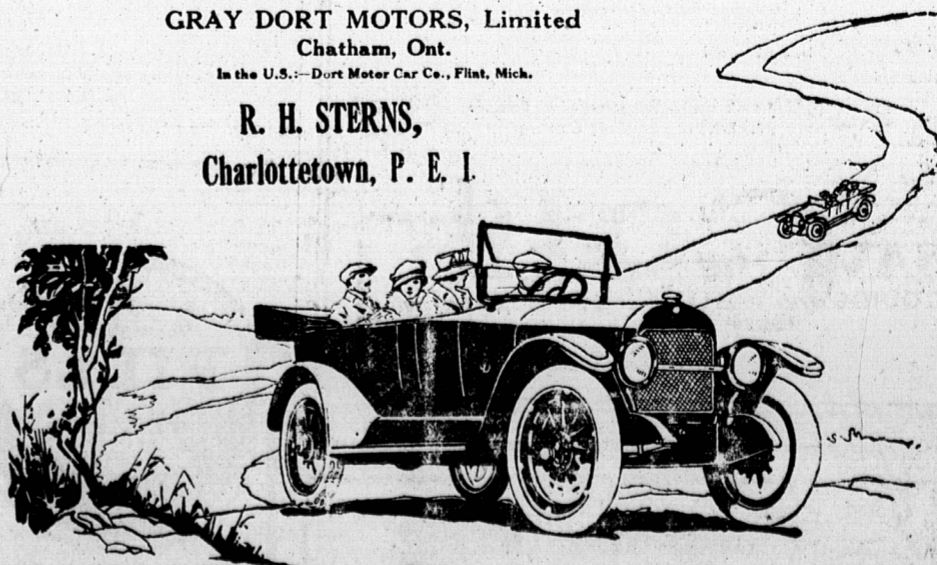
You need in your car *all* the qualities the Gray Dort has. And probably you need nothing more. Certainly you can get nothing more without paying very much more.

The touring car is \$1245; the Gray Dort Special—the car with added refinements and extra equipment, is \$135 extra; there are also a coupe, and a sedan. All prices f.o.b. Chatham and are subject to change without notice.

GRAY DORT MOTORS, Limited
Chatham, Ont.

In the U.S.—Dort Motor Car Co., Flint, Mich.

R. H. STERNS,
Charlottetown, P. E. I.



GRAY DORT