

AUTOMOTIVE SECTION

WHEN IS ANTI-GLARE NOT ANTI-GLARE?

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WELL, HENRY, YOUR CAR IS WELL KNOWN, ANYWAY

"The Ford was going east, your honor, and the other car was going west."
"There is nothing very interesting in this quoted statement that was made the other day in Baltimore's active traffic court. That is, there is nothing very interesting at first glance; but that statement really contains an overpowering truth, to wit—everybody knows a Ford. All during the afternoon session, whenever a witness had to refer to a Ford, he familiarly called it by its family name. Be the witness black, white, yellow, clean, dirty, cultured, or ignorant idealist, he always said: "Your honor, the Ford," etc.

"All other machines were referred to as "the other car" or "th/ big car" or "the car going the other way," but the little car that Henry Ford built never gets by unrecogniz/1, whatever disguise it might be wearing.—Maryland Motorist.



This column is devoted to the interest of the autoist. All questions as to care and operation of the motor car, such as engine troubles, tours, etc., will be cheerfully and fully answered by an expert. Questions must reach this office not later than Thursday to insure issue in current week. Address all communications care Automobile Editor Washington Times, giving initials of inquirer for index purposes. If your car is in trouble on the road and you need a tow or assistance, avail yourself of The Times Auto Emergency Service, it is yours for the asking. See notice in this section.

WHAT SHE THOUGHT.
He (somewhat embarrassed, after the car had stopped on a lonely road)—I can't start my engine; the thing won't spark.
She—Must be like some people I know.—The Olive Branch.

HARD TO BELIEVE.
You can't get the fellow in the road with a punctured tire to believe they change 'em in twenty-seven seconds in the speedway races.—In-lanapolis News.

Not least among the factors that contribute to the relative efficiency of the modern motor car as compared with its predecessors of a few years ago, is the present day design of manifolds. This efficiency of the manifold has much to do with carburetion efficiency and this in turn largely determines the power, economy, etc., of the engine. No other part of the internal combustion engine has undergone quite such revolutionary changes within the past few years as the manifolds, especially the inlet.

Two considerations have forced manifold design on the attention of the engineers. One has been the insistent demand of the motoring public, ever since there has been such a thing, for economy of operation as regards fuel and secondly the defining quality of the gasoline that is being used.

How the Fuel Flows.
Perhaps the average car owner does not know, or rather does not stop to think, just what process the fuel goes through before it reaches the combustion chamber. The fuel flows from a gasoline tank through a pipe into the carburetor, either directly or via

By L. J. FAULKNER.
There is considerable comment among auto owners and dealers over what has been termed a laxity on the part of the District Commissioners relative to the establishment of a definite standard of auto lenses to conform with the anti-glare law.

At the last meeting of the Washington Automotive Trade Association this matter was taken up and warmly discussed.

A resolution was adopted for presentation to the Commissioners urging that some action be taken.

There are now on sale in Washington approximately thirty different makes of lenses. Some, but by no means all, of these have passed the necessary test required in various States and have been officially indorsed by the States, but these same lenses have not been passed on in Washington.

The result is that the car owners are completely at a loss as to what lens to buy to protect themselves against being held up by a vigilant "cop."

Nearly every night car owners are stopped and reprimanded for having what is termed to be a "glare" light and what the driver firmly believed was an anti-glare one, fully within the law.

Many of these lenses have been universally indorsed by various States, and it seems obviously unfair that an owner, after paying from \$3 to \$10 for a pair of lenses, should find himself "in Dutch" for using them.

In most States the law requirement is that a lens, to pass inspection, must not cast a beam of light more than forty-two to forty-five inches above the ground, and that it should be properly focused and absolutely glareless when full electric power is being delivered and not be subject to an increase at the wishes of the owner.

It is high time something was done to remedy this uncertainty and for the public to be informed officially what is and what is not a lawful lens.

Captain Heady, of the traffic squad, has been taking considerable action lately along this line, and it is to be hoped that the committee who have charge of passing on these lights will soon enlighten autoists as to WHEN AN ANTI-GLARE IS NOT AN ANTI-GLARE.

a vacuum tank. The fuel enters the float bowl of the carburetor, where it is passed through a very small opening. The partial vacuum that is created in the cylinders by the movement of the piston, lifts the fuel into the combustion chamber.

Now if the fuel is very light and highly explosive, it flows into the combustion chamber without trouble. But when it is heavy, it does not flow readily, its rate of flow decreasing as its weight increases. Everyone knows that cold tends to thicken oil of any kind, gasoline as well as others. A fairly good grade of fuel may leave the carburetor pretty well collimated, but striking a cold surface, as the metal of an exposed manifold, it will condense on the walls and relatively little of it will reach the combustion chamber. This is the problem our engineers have endeavored to solve.

One of the first methods of improving the manifold was that of putting a jacket around the intake section at some position near the cylinders and passing either heated gases or hot water around the manifold. Another method was tried a little later of bolting the carburetor directly to the cylinder block, so that the heated passage in the casting would supply heat enough to vaporize the fuel. This latter method is used to a great extent now.

Different Methods.
One school of designers tried the experiment of heating the fuel before it reached the carburetor. Still

another group favored the idea of heating the gasoline right in the carburetor. Both these methods had certain disadvantages, from the fact that if fuel is heated before it gets to the carburetor or even in that instrument, it still has an excellent chance of condensing again on its way from the carburetor to the combustion chamber, unless additional means of keeping it warmed is provided. If this latter is done why not perform the whole operation after the gasoline has left the carburetor?

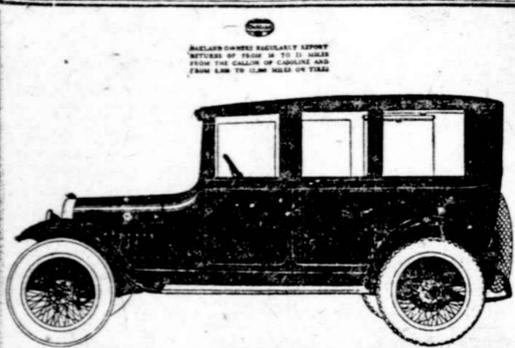
In a number of recent designs the inlet and exhaust manifolds have been placed in close juxtaposition with the intention of having the heated bases in the latter impart enough warmth to the former to keep the fuel thoroughly vaporized. In similar designs the inlet manifold is made to pass through the exhaust outlet at a single point. While these designs seem to give satisfaction, probably the most efficient method of handling the problem is found in the idea of incorporating the inlet manifold within the cylinder block, where it is practically surrounded by a hot volume and is close to parts that ordinarily run hot.

Movable Shutter.
Another idea that contributes to efficient carburetion is found in the fitting of the air pipe leading to the exhaust pipe with a movable shutter, whereby after the engine is hot, the shutter may be opened to admit cold air, so as to obtain exactly the

right conditions for maximum fuel efficiency.
Last year there was a violent irruption of manifolds commonly called "hot spots." The name was accurately descriptive, for it simply means a spot in the inlet manifold maintained at a high temperature, so that the gas in passing over it is warmed and made highly volatile. It is a peculiar fact that vaporized fuel does

not take the same course as liquid fuel.
Gas or vaporized fuel, because of its higher kinetic values, tends to travel in a straight line until it strikes some obstruction. If this obstacle is part of the inlet system the liquid particles remaining in the fuel will be vaporized without affecting the mixture by unduly expanding it. Which brings us to consideration of

another phase of the matter. Before we leave the "hot spot," let us point out that common idea that this feature helps in starting the cold motor is totally erroneous. The hot spot does not get hot until the engine has run long enough to become heated, so that the hot spot does not come into play until the engine has been running for some time



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