

HINTS FOR THE MOTORIST

By ALBERT L. CLOUGH, Steam Cooling

It Is Likely To Be A Feature Of Future Cars
THIS NEW COOLING SYSTEM for motor cars is just making its commercial debut, basing its claims upon its ability to maintain engine temperature continuously at the boiling point, irrespective of weather conditions, without loss of water.

Why The Hot Engine Works Better
Such a high jacket temperature has come to be recognized as advantageous, among other reasons, because it improves fuel vaporization, thus increasing gasoline economy, reducing oil dilution and minimizing carbon deposits and because it diminishes friction losses due to over viscous oil. Ordinarily pump-circulated systems can never maintain so high a temperature without serious trouble resulting and in cold weather often run as low as 100° F. for considerable periods.

Displaces Artificial Temperature Control
The new system is intended to accomplish, far more effectively, what shutters and thermostats are introduced into the ordinary system to do, viz: To secure rapid warming up and the maintenance of a high jacket temperature.

Steam Formed And Condensed
With steam cooling, under normal operating conditions, steam is formed in the engine jackets at all times and is condensed continuously by entering the otherwise empty radiator near its bottom and flowing upward through it, the resulting water being returned to the system. Circulation at a low rate, but by means of a positively acting pump, supplies water to the jackets from the bottom header of the radiator (the condenser) and creates sufficient movement to prevent the pocketing of steam and resulting overheated spots in the engine jacketing.

How It Is "Hooked Up"
A relatively small outflow pipe leads from the head jacket of the engine to the lower portion of the conventional radiator (acting as condenser), while a gear-pump draws water from the lower radiator tank and delivers it, through tubing of small size, to the head jacket to replace that converted into steam. This hot water flow may be carried through a heating coil in the oil pan and thus keep the oil hot enough to flow readily and to somewhat free it of diluting fuel ends.

Prompt Heating Up And Ample Capacity
Because of the very small amount of water circulated by the pump through the engine, heating of the jacket water is very rapid and practically no heat is rejected to the condensing surfaces of the radiator until steam has formed and begins to come over through the outflow pipe. Efficient working conditions are thus established in the engine very soon after it is started and the jacket-water remains practically at the boiling point thereafter. Owing to the enormous amount of heat required to convert a given weight of water into steam as compared with that required to heat it from the customary radiator outflow temperature to the radiator inflow temperature, the maximum cooling effect of the system is very high and the likelihood of losing water, as steam escaping from the condenser, is very slight.

VALVES MAY NEED ATTENTION

L. C. R. writes: The engine of my 1923 car (run 2300 miles) does not have as much power or as good fuel economy as formerly. It has not much compression, as indicated by hand-cranking, but does not pump oil. It has never been cleaned. How about installing inner rings?

Answer: After such a small mileage, the ring fit should still be practically as good as new, unless piston lubrication has somehow failed. If the engine has never been cleaned, we presume its valves have never been ground and we should advise having this done, before assuming that the rings are at fault. The multiple-valve engine attention several times before rings need replacement. When a piston ring has lost its spring and requires added expanding effect, it appears that an inner ring can advantageously be used in conjunction with it.



Questions of general interest to the motorist will be answered by Mr. Clough in this column, space permitting. If an immediate answer is desired, enclose self-addressed, stamped envelope.

Lower Output.
There has been a 4 per cent. decrease from April in the May output of automobiles. But the 404,300 cars put out during May were 33 per cent. more than the production of May, 1924.

Auto Costs Down.
Automobile prices went down 29 per cent. below those of 1913, while other commodities went up an average of 87 per cent., according to the National Automobile Chamber of Commerce.

Road Confusion.
Federal and state highway officials are working on a system for designating the principal automobile routes over the country. There are at least 256 named routes and 97 different associations, each promoting one or more named highways in the United States.

Simplified Units.
Internal gear pump lubrication and an automatic fan belt tightener are characteristics of a new water pump.

TWO STORIES

Version "A." From "THE DAILY SOAPSUDS," August 1st, 1925.

"In the death of Sir Bankrupt Dancyville, the community loses a great and courageous citizen. He gave freely to every cause, and often at personal sacrifice. His employees worshipped him because they came first in his thoughts. As proof of this, Sir Bankrupt advised all of them to buy their Oil, Gas and Tires from Attwood & Dine. As Shakespeare says: 'We shall not see his like again.'"

Version "B." From "THE LITTLE SPARROW," August 1st, 1925.

"Sir Bankrupt Dancyville, who passed away on the 16th ultimo, leaves a trail of unpaid bills behind him. He gave cheques to charitable institutions in his own name and then charged them up to the Company of which he was President. A lot of his employees will remember Sir Bankrupt, too, as he loaded them up with a pile of his bun stocks. About the only thing tangible left behind by Sir B. D. are three or four tires domiciled at Attwood & Dine's for repairs."

It is important that the Regular Guys who are here all the time, as well as the Old Boys and Old Girls of Kingston who are returning for the week—August 1st to August 8th—should have this fact clear in their mind: That no matter how extreme two stories may be about a man or a cause, they always line up when it comes down to buying Tires, Gas, Oil. A. & D.'s is the place par excellence for motorists—the place where the gang will always be.

AUTOMOBILE REPAIRING
Cylinder Blocks honed separately if required.
Exide Battery Service Station.
ELLIOTT & WILLIAMSON
210 Division Street Phone 1030. Night Phone 1213-J.

ENGINEERS STUDY MIND OF MOTORIST

To Find a Way Towards Improvement of Machine's Riding Qualities.

Automotive engineers are studying the mind of the motorist to find a way toward improvement of his machine's riding qualities.

Far-fetched as this might seem, it reveals a definite link between the driver and his car.

The driving of an automobile creates two distinct impressions, physical and mental. The automotive engineer gives these impressions the apparently unrelated name of "insults."

The "insults" with which the engineer's concern themselves most are the disagreeable ones, resulting from poor riding quality. Both physical and mental "insults" have to be considered in the search for the causes and cures of discomfort in motoring.

Therefore the engineers begin with a consideration of these physical and mental "insults."

Vibration and Noise.

A thorough study of this phase of motoring in its relationship with automotive designs being made by the research department of the Society of Automotive Engineers. A preliminary report is made by H. L. Horning, of Waukegan, Wis.

In their studies so far, Horning reports, the members of the research department have found that vibration and noise are physical and mental "insults" which the automotive engineer can correct by improvement in the design of the automobile. The disturbance a car makes, says Horning, causes fatigue, pain and even a sense of fear, on the part of the driver and his passengers.

Manufacturers have already done much toward the elimination of these "insults." Four wheel brakes not only allay the sense of fear, by their double assurance of stopping the car within a safe distance, but they increase the pleasure of driving by stopping the car quickly.

Improvements Made.

Quick acceleration and deceleration, explains Horning, afford physical and mental pleasure, because of the rapid change they afford. The price we pay in increased fuel consumption is overlooked by the average motorist.

Engines are being isolated from the chassis, with the view toward decreasing the vibration of the car. As much attention is being paid now to balancing the clutch, drive-shaft and universal joints, as was given heretofore to balancing the crankshaft and flywheel.

Hard steering, bad spring design, narrow-gauge, instability of the foot on the throttle and even poorly designed body hardware are "insults" that need correcting, to improve the riding qualities of cars.

Four wheel brakes have helped much in the direction for the better, and balloon tires promise as much, Horning adds.

ARE AGAINST GIVING RIDES TO STRANGERS

Encourages Idle Wanderers and Makes Boys Lazy, Says Writer.

Sounding a warning against taking strangers along the roadside into one's car, H. Clifford Brokaw, New York writer on automobile topics, suggests that walking is a healthful exercise which should not be discouraged by motorists.

"Touring the country on foot," he says, "is an enjoyable recreation which those who have no automobiles should be allowed to pursue and they will ordinarily get the most out of such outings if the motorists let them keep walking."

He adds with considerable truth that these beggars in general are a menace to those who live in the country. They often get their food by foraging in farmers' gardens and are careless with matches when it comes to sleeping in barns. They show little respect for the property of others.

"So popular has this catching a ride business become in the country that motorists are constantly annoyed by persons standing by the road or in it seeking a ride.

"Not a few have become so bold that they stand in the middle of the road exposing themselves to all kinds of danger of being run into as they practically demand a lift. Many a driver being kind-hearted by nature, finds it difficult not to give these lifts.

"While most of these self-appointed travelers are young men out for innocent fun, some of them are not as innocent as they look. Women drivers of cars, perhaps being more tender-hearted than men, are probably more apt to take these parasitic wanderers aboard. But both men and women drivers will usually be using good discretion if they resist the temptation.

"No doubt the small boy is the most persistent collector of free motor rides. Even if he is only going a few blocks to school he often prefers to stand in the road waiting for a ride rather than walk the short distance. He should be advised against this practice by his parents."

Depend On Bus Lines.

There are more than 1,000 bus routes in California. Nearly 43 per cent. of the cities served by bus lines have no other means of common transportation.

The average chauffeur certainly takes life easily.



WELCOME HOME!

WE AND OUR STAFF EXTEND A HEARTY WELCOME TO ALL OLD BOYS AND VISITORS TO OUR CITY.

WHILE HERE DON'T FORGET OUR TWENTY-FOUR HOUR SERVICE IS AT YOUR DISPOSAL.

Ford Sales and Service

VANLUVEN BROS.

FOOT OF PRINCESS STREET

NOVA SCOTIA HAS VERY GOOD ROADS

And Fine Scenery for Summer Tourists—Many Americans Are Visiting There.

Halifax, July 30.—Nova Scotia, surrounded by leaping ocean tides, has become a Mecca for summer tourists. Here mellow sunshine, ozone from the sea, and balsam from the pine forests are blended in the soft fresh air.

"The Land of Evangeline" with its historic scenery, its excellent roads, its good accommodations, and many interesting sights, one of which are the tides of the Bay of Fundy, is attracting tourists in large numbers.

Last year motor tourists in 10,000 cars enjoyed the many attractions of Nova Scotia. This year the number may be doubled.

This interesting old province has nearly 2,000 miles of splendid roads, half of them following the superb scenery of the historic coast.

The roads, the entire route between Nova Scotia and connecting links in Canada to United States cities, are gravel or macadam. Where detours are necessary, the detour roads are well-kept.

Many motorists taking steamers from Boston and New York. They can have their car transported with them, and then all Nova Scotia, is a playground which they can explore at will in their autos.

There are many comfortable hotels, inns, hospitable farmhouses, and eighteen tourists motor camps where accommodations can be found.

Oldest Settlement.
The amusements offered include golf, tennis, bathing and fishing. But perhaps the best entertainments are the tours on the island. Nova Scotia has the oldest European settlement on the continent north of the Gulf of Mexico.

In the ruined fortresses the student may retrace American history. Here one finds Fort Anne, Fort Edward, and Beauséjour. There is also the desolation of ruined masonry which was Louisbourg—Louis the XIV's "most splendid city."

For the convenience of American tourists an information booth is maintained at the boundary line between New Brunswick and Nova Scotia. A. J. Campbell of the Nova Scotia publicity bureau at Halifax will answer all mail inquiries from Americans interested in summer touring in Nova Scotia.

None of the waters in Nova Scotia are preserved. Countless rivers, brooks, and lakes provide trout and salmon through a long season. There is fishing for haddock and swordfish and cod offshore, and the giant tuna makes this its only haunt on the Atlantic coast.

Visitors may tour three months without registration or fee, and no passports are necessary. Let those who never break the speed law cuss congressmen for breaking the dry law. "Somebody put the hooch in my car," sounds fine. Eat nobody's ever. Put any in mine.

Slipping Into Neutral.

When the gears acquire the habit of slipping back into neutral from high or second the trouble is due to the shifter forks. If they are worn the gears will not always be fully engaged, and where there is considerable strain or vibration (as in climbing a steep hill in second) it will be necessary to hold the shift lever in the desired position. Misalignment of the forks will often cause the gears to slip back to neutral from any position, particularly annoying in the case of slippage from high to neutral when descending grades. If the trouble is con-

fined to the latter, and is slight, it can be overcome by avoiding sudden application of power or brakes and by gentle handling of the clutch.

To be able to neck gracefully while driving an imported roadster 75 miles an hour may not exactly be a practical accomplishment, but one must admit that it is an accomplishment.

The noise an automobile makes depends more upon the driver than upon the machine itself.

Another advantage a closed car has is that it isn't so easy for drunks to fall out.

Automatic Switch.

An English inventor has patented an automatic switch for the ignition circuit which is operated by the suction in the inlet manifold. When the engine is cranked, the vacuum produced in the manifold draws a piston to the top of the cylinder thereby closing the ignition circuit.

Fine Measurement.

Accurate measurements to one-millionth of an inch are made by the Packard makers by means of a light wave reflector. Highly polished glass discs reveal the light waves between two surfaces.

OVERLAND

Deluxe **SIX** Sedan

\$1550

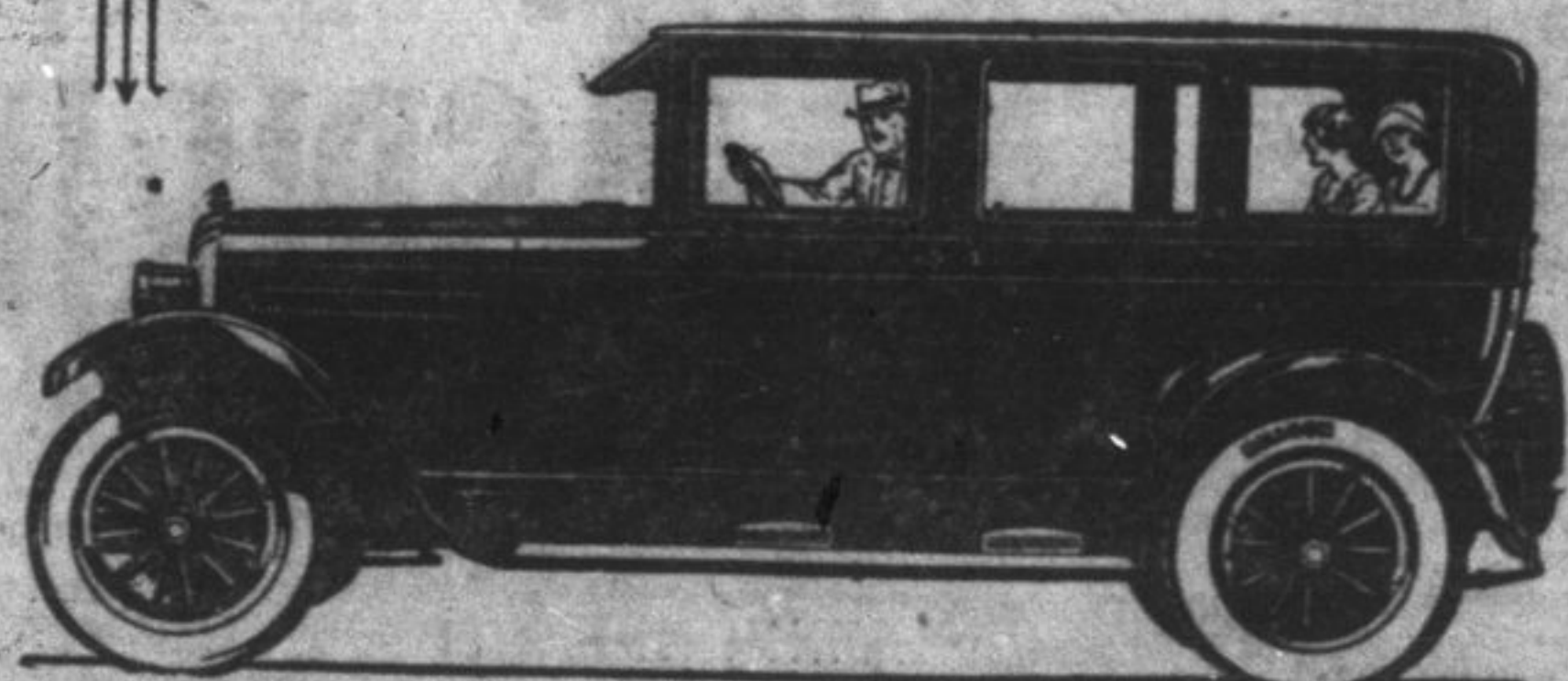
F.O.B. Factory, Taxes Extra.

In size, richness, power, performance, comfort... the most surprising value in the six cylinder field.

The Overland Six is one of the outstanding reasons why the motoring public has invested approximately \$130,000,000 in Willys-Overland Motor Cars during the first six months of this year.

It is but natural that a car so richly finished in two beautiful colors, so far advanced in engineering, so notable in performance, so remarkably low-priced, should quickly come into its own. Its power plant is a revelation of what experienced engineering can accomplish with six cylinders in power, getaway, quick pickup and consistent economy.

See this remarkable car. Feel the thrill of driving it. Small down payment—a year to pay.



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