

# HINTS FOR THE MOTORIST

ALBERT L. CLOUGH.

## Crankshaft Development

**The "Speed" Running Of Modern Engines Is Largely Due To It**

IN THE EARLY DAYS, if a crankshaft did not break in service and if its bearings "stood the gaff" reasonably well, that was sufficient, but with the exacting present-day requirements that a motor car engine shall operate about as smoothly as an electric motor, the crankshaft is required to convert the enormously rapid up-and-down motion of the pistons into rotary motion that is free from any sensible irregularity or accompanying jar.

### The Crankshaft And Engine Vibration

In securing the "valve" quality of engine performance, that car users demand the crankshaft plays a most important part and to improvements in its construction are largely attributable the extraordinary increase in steadiness noticed in recent engines.

### Securing Perfect Balance

A crankshaft that is not in perfect balance exerts jerky forces, as it rotates, these jerks increasing in violence with increasing speed and setting the entire engine and car into vibration. By making the shaft as nearly inherently balanced as possible and by the use of attached counterbalancing weights, this source of disagreeable and power-wasting vibration has been minimized.

### Attaining Rigidity Against Bending

At first thought, it seems impossible that so massive a thing as a crankshaft can bend in service, but when the tremendous transverse forces acting upon it are appreciated this seems remarkable no longer. This bending and "whipping" and the jar it causes, has been overcome by making the shafts more massive—of larger diameter—and by the use of more numerous and longer bearings, thus decreasing the distance between points of rigid support.

### Large Diameters Insure Stiffness

Recent crankshafts are very "stocky," of such large diameter at bearing parts and also an almost to obliterate the transverse or "chock" portions of the cranks as such.

### Bearings Closer Together

Four bearings for six-cylinder and three for four-cylinder crankshafts are being replaced by seven and five bearings respectively—one at each end and one between each pair of cylinders—thus reducing the unsupported shaft length so greatly that transverse vibration is practically obliterated and by the application of the front-end auxiliary flywheel, vibration due to the twisting of the shaft is eliminated in many engines.

## FITTING OIL-RECONDITIONING APPARATUS



**WELL, I DON'T KNOW!**

**YOU SHOULD KNOW!**

THIS OIL RECONDITIONING DEVICE

C. B. V. writes: I am urged to buy 1926 car with a continuous oil-reconditioning device made by the \_\_\_\_\_ company, which consists of means for raising oil from the pump, by manifold suction, heating it from the exhaust, evaporating volatile foreign matter (which is sucked into the cylinders), filtering-out and setting solid impurities and returning the purified oil to the crankcase. Do you think this would prove a worth while addition to this car?

**Answer:** We think it would. The principles involved in its operation are sound and the company which makes it has a reputation for the high grade accessories which it produces. As matters now stand, no car that is unprovided with an adequate means for maintaining the lubricating qualities of its engine oil can be considered fully up-to-date. You will probably find that the use of this device will not only give you better engine performance for a long period of time, but will save you money in the end.

## KEEPING CYLINDERS FROM RUSTING

**E. V. D. asks:** I have heard that an engine which is laid up for the winter is likely to have its cylinders rust. Is this so and is there any way of preventing it?

**Answer:** There is some danger of this, unless suitable precautions are taken. The main thing is to make sure that the cylinder walls are left coated with oil that is free from water. If the crankcase is drained, fresh oil supplied, the engine then cranked over for a few revolutions and a little oil introduced into each cylinder, through its spark-plug hole, there is very little likelihood of rust forming, especially if it is hand-cranked a few turns every few weeks. Some advise the use of castor-oil instead of regular cylinder oil for rust prevention, but this is hardly necessary and involves additional bother. The above precautions should be taken only after the car is in its permanent location and the engine not started thereafter.



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.

In the making of bricks, clay and other mixtures are handled 78 times before the product is complete.

A musician in England has invented a portable piano, when folded, is only three feet in length.

## SUNSET DRIVING VERY DANGEROUS

Your most dangerous period for driving is the sunset hours, between 4 p.m. and 7 p.m., Mr. Motorist.

Children are released from school and are playing in the streets at that time; persons are hurrying home from work afoot or in motor cars. Fatigue is considered a large factor in the cause of many accidents at this time of day. It is then that motorists and pedestrians alike are slow to react to danger.

Be cautious even at the care-free time when the day's work is done. Watch out for yourself, because the other fellow may fall to watch out for you.

## KNOW YOUR CAR.

Talk and Demonstration on Chevrolet Features and Quality.

In an effort to get the public interested in the mechanical features and working parts of their automobiles General Motors of Canada are this year holding meetings at practically every one of their dealers' showrooms throughout Canada.

The main attraction at these meetings consists of a clear and concise explanation of the various working parts of an automobile by a thoroughly experienced engineer from the General Motors staff. He is aided in his explanations by having the various different units on exhibition with parts of their housings cut away so that the moving parts can be seen in operation. This year a 1928 Chevrolet chassis is the car on which the demonstration is based. As will be seen from our advertising columns the Kingston lecture is to be held on Monday, March 29th, at 8 p.m., at the showrooms of the General Garage, Limited, Brock and Montreal streets. Chairs are provided and it is understood that in addition to the lecture there will be several other interesting features. In addition to the cut away chassis the various latest models of Chevrolet cars will be on exhibition. Everything possible is being done to make this an educational as well as an enjoyable event and a cordial invitation is extended not only to Chevrolet owners but to all car owners or prospective owners.

## HAS NOVEL SUGGESTION FOR CHEAP GARAGES

Sidewalk in Front of Home Might Be Utilized.

London, March 25.—It started with a man who stopped to watch a large roll of newspapers sink slowly into a hole in the sidewalk.

He must have been a city motorist, or he never would have thought of it. And he must have been fairly in need of garage space for his machine, or he never would have broached it.

As it is, here's his unique idea—free for the use of those who have similar trouble with their cars. They're mostly, if not all, city dwellers, living so close together that they can't have their private garages, and still being pestered by the police

# CHASSIS

This Demonstration is of real value to every person interested in Motor Cars

IT is a rare occasion when the average motorist has an opportunity of having the functions of the many parts of an automobile chassis demonstrated by an expert, using a cut open motor and stripped chassis. Such an opportunity happens only about once a year and should not be passed up. Every motorist should be familiar with the fundamentals of motor car construction. The expert will demonstrate the why and how of all the major motor car parts. For instance, he will explain in detail

why the three-point motor suspension reduces vibration noise—why Chevrolet will flash from 5 to 25 miles in less than 8 seconds.

The lecturer, who comes to us direct from the Chevrolet factory at Oshawa, will also explain why the improved Chevrolet incorporates many mechanical features heretofore only found on high-priced cars.

Regardless of what car you drive or are interested in, this Chassis Demonstration will be a real education.

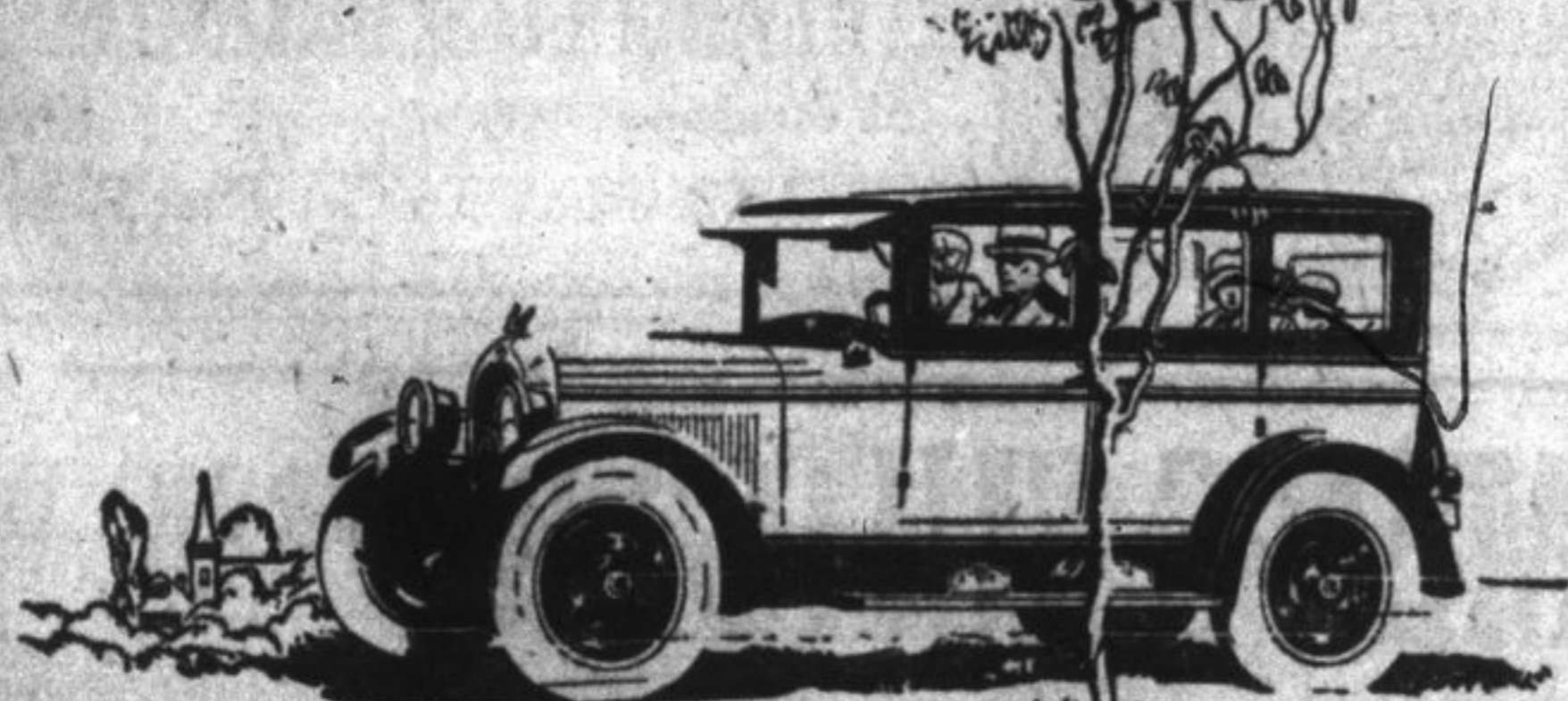
Monday March 29th, 8 p.m., at Our Show Rooms  
The Central Garage Limited  
BROOK AND MONTREAL STREETS. PHONE 600



# DEMONSTRATION

CD-350

## NOW CHRYSLER "58" GIVES YOU THIS SUPERB PERFORMANCE AT NEW LOWER PRICES



Price for price—more emphatically today than ever—Chrysler "58" gives the utmost in mechanical performance, economy and dependability, riding comfort, driving ease, and charm of appearance.

Its effortless speed ability carries you mile after mile at 58 miles an hour, if you wish, in quiet, vibrationless comfort.

Its wealth of power whisks you through traffic tangles, from 5 to 25 miles in 8 seconds.

As much as anything, we believe, you will appreciate its ability to give you the satisfying economy of 30 miles to the gallon of gasoline.

And perhaps you will better understand the growing preference for the Chrysler "58" when you know that its new lower prices give you the identical performance, identical quality and unmatched beauty which have always placed it above comparison in its field.

We are eager to prove, by personal demonstration, the scores of quality advantages, which, at its new electrifying low prices make Chrysler "58" the supreme motor car value of today.

CHRYSLER "58"—58 miles per hour—30 miles to the gallon—5 to 25 miles in 8 seconds.  
CHRYSLER "70"—70 miles per hour—5 to 25 miles in 7 1/2 seconds—65 horse-power—hydraulic four-wheel brakes.  
CHRYSLER IMPERIAL "90"—As fine as money can buy—Chrysler battery for 2 to 7 year average—91 horse-power—30 miles per hour.  
All models equipped with full balloon tires.  
We are pleased to extend the convenience of time payments.

CLARK BROS.  
371 King Street. Telephone 2357f.

CHRYSLER "58"



to keep their cars off the streets at night.

It's nothing but the simple expedient of sinking the auto into a hole in the sidewalk.

Why not? Just open up the front sidewalk of the house, and drop into it the cars of the tenants in the apartment house nearby.

In fact, a large part of the apartment basement could be set aside for this purpose.

A car comes up, the trapdoors flat on the sidewalk are opened up, the car rolls upon the platform, and down it sinks. Then the doors close and the sidewalk is clear again.

And no more space occupied, either!

The suggestion is made, in addition, that this sidewalk life could be operated under the power of the auto engine!

**Pointer on Cranking.**

In cranking his engine the experienced motorist will use the choker as sparingly as possible, but he also will avoid the mistake of measuring the amount of choking by the time required in the cranking process. When a battery is weak it will take longer to crank the engine. This does not mean that the owner will be choking the carburetor more, for the engine is not turning any more revolutions than if the battery were up to par. If battery and starter are particularly active it often is true that what would seem to be a little choking is excessive.

**An Abuse to Avoid.**

Avoid driving fast through deep slush or water puddles during cold weather. If the chassis is kept wet during the day and the weather turns off cold at night ice will collect on many important units. Springs, spring bolts, shackles, steering rods, king bolts, universal joints, brake rod connections, etc., have a hard enough time struggling against odds as it is. To freeze them up needlessly is just another way to abuse the car.

## Free Window Regulators.

Winter is the season of the year when the window regulators of the closed car are inclined to stick. Frequently they will be so stiff that one experiences the sensation that the regular handle will break off unless something is done to remedy the situation. The remedy, however, is a little graphite dropped on the working gears through the window sill opening when the window is fully lowered. Lubricant can be added also through the regulator shaft after the handle and the cap are removed. A mistake, however, is to look for immediate results. The regulator will continue to work hard until the graphite has worked in.

## PREFERENCE

Of all the cars you see on the streets, two-thirds are equipped with Champions. This outstanding preference is very definite evidence that Champion is the better spark plug.



CHAMPION  
Dependable for Every Engine  
A Canadian-made Product  
Windsor, Ont.

## Helps to Prevent Skidding.

There will be less danger of skidding, even if chains are used, with lower inflated tires. The flatter the tire the more of its tread will come in contact with the road surface, and the better will be the traction. Remember this some day when a cold rain begins freezing on the streets. It may save a skid.

## Sells Herself Own Car.

A Pueblo (Colo.) girl who owned an automobile had the unusual experience of selling the automobile to herself. She was adopted and her name was legally changed. In order to hold title to the machine she had to transfer it by sale to herself from her old name to her new.

## House Wiring and Repairing

All Kinds of Electric Apparatus  
Satisfaction guaranteed. Best work at reasonable prices.  
"THE DOWN TOWN ELECTRIC STORE"  
HALLIDAY ELECTRIC CO.  
Corner King and Princess Streets. Phone 94.

## MILL WORK

## PLANING AND DRESSING

Band Sawing, Resawing and Ripping, Plain Mouldings, Machine Work, Sawmill Work, Logs cut to order.  
Prompt service, reasonable rates.

DAVIS DRY DOCK CO.  
KINGSTON, ONT.