



## CARBURETOR IS MOST DELICATE PART OF MOTOR

Proves Great Source of Trouble to Many Car Owners.

USE GAS STRAINER

Motorists Should Be Sure to Secure Best Quality Fuel.

The carburetor is the lungs of the automobile engine. Perhaps some time when you have been eating crackers you have accidentally breathed a few crumbs into your lungs. The result is an immediate suspension of operation of your faculties while the lungs expel the intruding substance. Something like this happens when you get a crumb of something in the needle valve or in the intake valve of the carburetor. One little good-for-nothing, insignificant speck of dirt, so small as to be almost invisible, will put the best carburetor literally out of business, and the only thing to do is to remove the speck.

One of the frequent and most annoying troubles to which automobile engines are subject has to do with the carburetor. This is particularly true on these frosty days when the gasoline and air do not mix properly.

There are several good makes of gasoline strainers which reduce carburetor trouble to a minimum, provided one will drain off the strainer occasionally to let the dirt run off. Straining the gasoline supply through wire gauze or chamols does not always entirely obviate the difficulty, for gasoline tanks are prone to acquire a slight sediment.

A few drops of water in the gasoline which reaches the carburetor will make trouble likewise, for it will not vaporize, and what is more, it will not let anything else vaporize. Probably no one is trying to dilute the gasoline with water and sell you such a mixture, but there are some mighty careless men in the gasoline trade. It reminds one of the farmer caught selling watered milk, who pleaded that there was a pump in the milking yard and some of his men must be careless in passing by it. The chamols skin will remove this impediment, for water will not pass through it.

The vacuum tank is a favorite resort for water, and if the plug or drain cock in the bottom of this tank is opened occasionally the trouble will be eliminated before it gets to the carburetor.

Another trouble which afflicts the automobile motor has to do with the weather. The carburetor requires frequent slight adjustment, due to changes of the weather. On a dry, warm day the gasoline vaporizes easily, and the maximum charge is readily exploded in the cylinder, giving a maximum of power. On a wet, cold, heavy day, gasoline requirements are different, and a slight adjustment of the control on the dash is necessary, but the variation is never enough to make changes in adjustments at the carburetor necessary.

A very slight leak in the intake manifold gaskets likewise makes all sorts of trouble, since the supply of mixture to the cylinders will vary according as the vibration opens up the gasket and stops the suction by which the cylinders are supplied. A leaky piston ring will do this for one of the cylinders. If worn, or frozen fast by carbon, it will fail to keep the piston tight, the mixture passes by the leak, if sucked in, and there is no compression and no explosion or irregular firing. This will make one think sometimes that the carburetor is at fault, whereas the engine really needs an overhauling.

In fact, if one is having engine trouble which is hard to diagnose, one

## Carelessness, Not Excessive Speed, Cause of Majority of Car Accidents

There is considerable popular misconception as to the dangers inherent in the speed at which automobiles are capable of going. As a matter of fact, most automobile accidents occur in a sense independent of the speed, and are due more to carelessness or reckless driving than to the actual rate of going. Some of the principal accidents occur at the lowest speed, for which reason legislative interdiction of reasonable speed by no means precludes the possibilities of mishap.

The point is that judgment is the one factor most conducive to safe operation, and that laws should be such, it is claimed, as to determine the possession of skill and judgment in every automobile operator rather than such as to prevent a skilled driver who uses good judgment from proceeding at a safe and reasonable rate.

Anyone at all familiar with athletics knows that there are hundreds of athletes capable of running at the rate of twenty miles an hour for as great a

distance as the average city block. This being the case, is it not absurd to make this speed the absolute maximum permitted even on the least crowded roads in the least populated sections of some counties? It is perfectly demonstrated that 50 miles an hour with a well-built car in competent hands and on a clear and perfect road may be far less dangerous than six or eight miles an hour with a poor car in the hands of an inexperienced driver in crowded traffic. There are circumstances when speed may become an absolute factor of safety, since there are times when the least likelihood of accidents is plainly to be insured by moving the car quickly from one point to another.

In an age when railroad and air transportation factors, the motorist, too, it is pointed out, should be given an opportunity to avail himself of the speed of his car—at least in places and at times when he may do so with safety to other highway users.

One of the most common causes of automobile accidents is the failure to adjust the valves properly. On the four-cycle engine the valves must be considered also, for they may leak and the pistons be perfectly tight, but in such an event it would be found almost impossible to get good pressure on the cylinder, since it leaks through the valves while the piston is making the compression stroke. Don't condemn the carburetor until you have determined whether either of these things is occurring.

The carburetor should be drained occasionally to prevent the accumulation of sediment, which will later clog the needle valve, and at least once a season should be taken apart and cleaned. Time spent in this way well repays the owner.

An easy test to see whether the carburetor is working right is to run several blocks with the throttle practically closed, then, when the road is clear, press sharply upon the accelerator pedal, which opens the throttle wide, and should make the engine speed up and the car jump forward. If it is sluggish it will denote a too rich mixture, and if it splutters and perhaps backfires it is too lean. But if, with smooth yet rapid action, it makes the car speed up, that is "pep." The amount of "pep" which a car is said to possess is gauged by the quickness with which it responds to the acceleration, either by the pedal or by throttle lever, changing the car from slow or moderate speed to full speed. That, too, without jerky action or tearing the motor apart.

While this test, showing the presence of "pep" will denote that the mixture passing through the carburetor is correct, absence of "pep" does not always mean that it is wrong. Therefore, it is not wise to jump to the conclusion that the adjustment is wrong. In fact, the adjustment should not be changed unless it is fully certain that it is wrong. If the car has been running with the carburetor working properly, and no one has changed the adjustment, it may be safely assumed that the carburetor adjustment is correct. Adjustments are not changed except by someone's fingers.

The owner should learn the make-up and peculiarities of his carburetor, understand its common and uncommon ills, and thus be able to remedy a trouble which would mar a trip or the general serviceability of the car. It is unnecessary to go into the detail of any make of carburetor, because if the manufacturer's instruction book does not contain full information and sketches of the make used, a special carburetor book may be obtained from the maker. But there is no excuse for failure to master the lungs of the engine and to learn how to keep them breathing properly.

Equipment for automobiles in 1900, considered "extra" in those days, included mud guards, best quality of oil lamps, seat cushions and one spare tire.

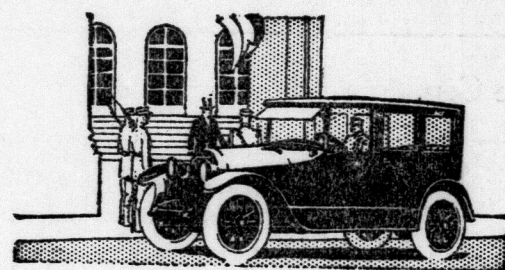
## Ford Owners—

WE will continue to give service on all FORD cars as heretofore; also we will maintain a full stock of "GENUINE" FORD REPAIR PARTS, and we solicit a continuance of your patronage, assuring you our constant endeavor will continue to be

"SUPER-FORD SERVICE."

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America's preference for the Cadillac is shared by the great automobile critics of Europe, who declare the Cadillac to be the world's finest motor car.



# CADILLAC

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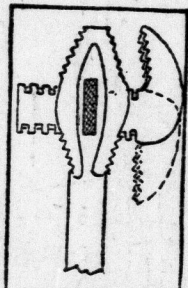
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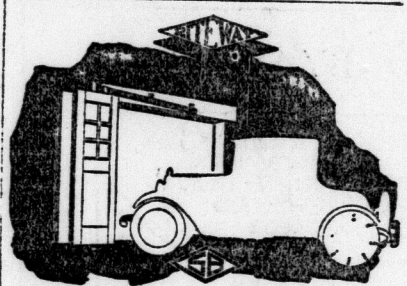


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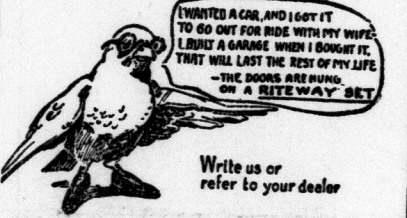


nut or rod, but to any position. This feature makes it especially suitable for the motorist's tool box. The jaws run parallel to the handle. Full leverage can be obtained in any position, say its producers.



Wind-Proof Bird-Proof Storm-Proof

Riteway Garage Door Sets



Write us or refer to your dealer

N. Slater Co., Limited Hamilton, Ontario.

## DODGE BROTHERS BUSINESS COUPE

With this coupe Dodge Brothers have proved once for all that a closed car can be as sturdy and practically as inexpensive as an open roadster.

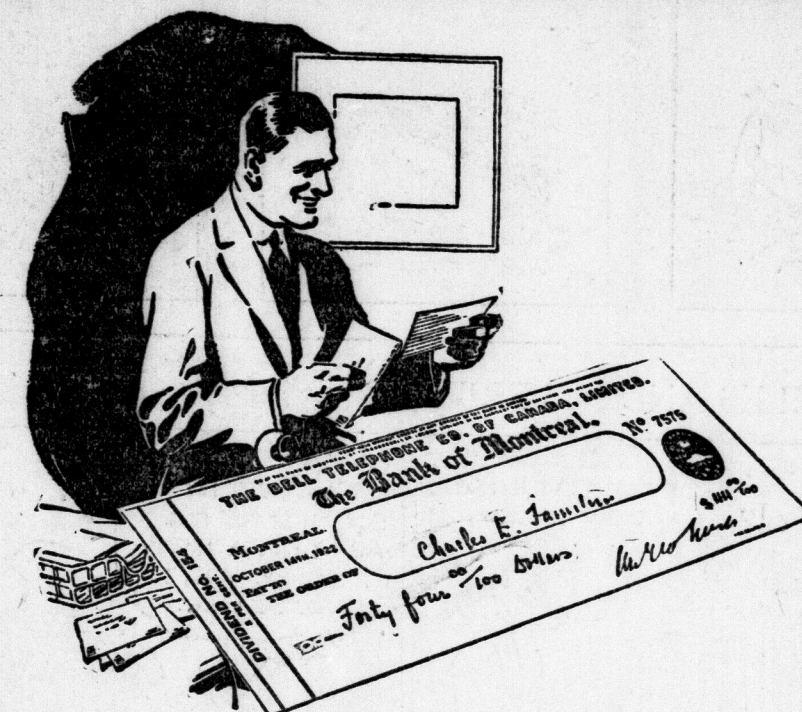
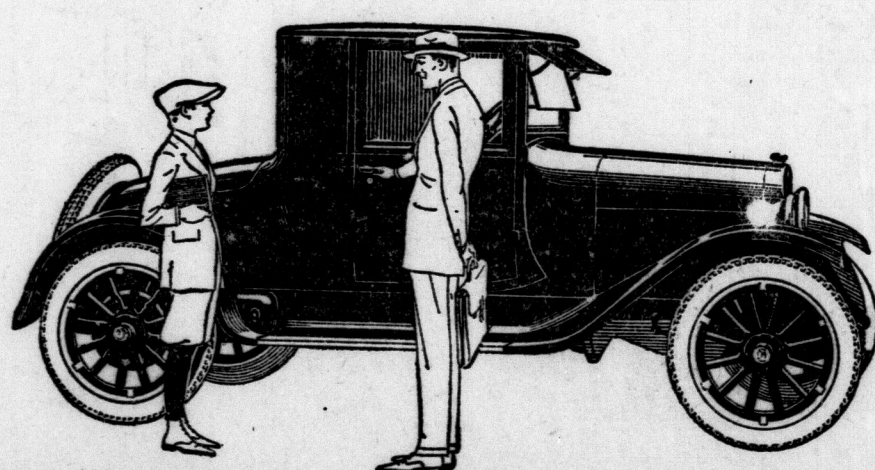
This is largely due to the all-steel body—the first ever marketed—which admits of lower cost of manufacture through standardized machine production. Unlike wood, the steel surface will take a finish of enamel, baked on at high temperature. This process results in a permanent lustre, and eliminates the trouble and expense of repainting.

The wide straight seat is upholstered in genuine Spanish blue leather, durable and readily cleaned.

Prices, delivered and taxes paid.  
Touring - \$1,390 Business Coupe - \$1,545  
Sedan - \$2,320 Business Sedan - \$1,895

W. J. CHISHOLM

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## Continuous Dividends ensure more Telephones

To-day, 7,500 Bell Telephone stockholders receive our cheques for their regular quarterly dividend.

For over 36 years without interruption these cheques for dividends on our stock at the rate of 8 per cent. per annum have gone regularly to our shareholders.

We must pay our shareholders for the use of the capital they entrust to us, just as we pay employees for their labor.

Why stress this point about the regularity of the dividend?

New capital for extension of our system can be attracted only by an assured and adequate return. Our continuous outlay of this new capital is the only means by which applicants for new telephones can get the service they need.

For the first eight months of 1922 we have provided the facilities—buildings, switchboards, poles, wire, cable, instruments—that have enabled us to install more than 52,000 telephones. We are making every effort to overtake and anticipate demand.

C. H. BEARD, Local Manager.

Every Bell Telephone is a Long Distance Station



## Feed your product more vitamins

BRIGHT color on big spaces may create interest in a picture, but it lacks four-fifths of the advertising vitamins that send people into a specific retail store to buy goods.

The retail distributor must have advertising that builds up confidence in the product; that can educate new customers; that can make them desire new things to eat and wear and enjoy; that finally sends them to the counter with cash in hand.

Thirty years ago, Mr. P. C. Larkin sought anxiously for a link between his brand, the retailer and the buying public. He found one that has never broken.

"I thought of telling my story in a single newspaper," he writes, "which I did and soon saw results. The single medium soon became two, and then a dozen, and now many hundreds on the American continent alone, where practically every daily newspaper of any importance carries Salada Tea Company advertisements."

There is only one common power that can influence buyers for our local merchants and the national advertiser. This is the Daily Newspaper in our trade area. The retailer who impresses this fact upon the manufacturer turns over his stock quickly and profitably.

Issued by the Canadian Daily Newspapers Association, Toronto.

## Three Things You Want

The three things that count in a battery, the Exide gives in maximum measure. These are:

- 1—Plenty of Power—and then some
- 2—Long Life
- 3—Freedom from Repairs

A real battery means so much to you that you should ask, in buying a new car, if it is Exide equipped.

If you have any trouble in finding an Exide when you need to replace your present battery, just write us or our nearest district distributor.

If you won't feel warranted in buying a new Exide Battery at this time, ask our nearest Service Station—before you consider getting a substitute make of battery—whether your present battery cannot be rebuilt with genuine Exide parts. Go to an Official Exide Service Station for Winter Storage—it will pay you.

EXIDE BATTERIES OF CANADA, LIMITED  
153 Dufferin Street, TORONTO



Exide  
MADE IN CANADA  
BATTERIES

THE LONG-LIFE BATTERY FOR YOUR CAR