

# CHEVROLET SHOP SOLVES WINTER CAR STARTING

To many automobile owners, "cold weather driving" and "hard starting" are synonymous.

It is true that an engine does not start as easily in winter as in summer, but a little care on the part of the owner will go a long way toward minimizing the difficulty. Chevrolet Motor company engineers point out.

Since the inception of the Chevrolet car more than eighteen years ago, company engineers have been applying themselves to the problem of easier starting.

Making use of the "cold room" facilities of the General Motors research laboratories and working for hundreds of days in zero weather at the General Motors proving ground, Chevrolet technical men have been attacking the "cold motor" problem for many years.

In considering the case of the car that is difficult to start in cold weather, Chevrolet engineers call attention first to the rather obvious fact that an engine in good condition will perform all its functions, including starting, more satisfactorily than one that is out of adjustment.

The principal parts which have a direct bearing on the starting of an engine are: Battery, starting motor, carburetor, spark plugs, ignition system and valves.

As the efficiency of the battery is materially reduced in cold weather, it should be given great consideration. If the electrical system is weak, complete combustion cannot be obtained, therefore, before the start of winter, it is good preventive insurance to have some reputable electrical service station check over the battery, spark plugs and entire ignition system.

The starting motor very seldom causes trouble.

If the carburetor must be adjusted properly for the winter and choke and throttle controls connected properly.

The spark plugs are equipped with two electrodes set in such a manner that the electric current must jump across a small gap from one to the other. In making this jump, a spark occurs. It is this spark that ignites the mixture of gasoline and air in the combustion chamber of the cylinder. The size of the gap between the electrodes affects the type of spark produced. It is, therefore, important that this gap should be inspected for proper adjustment.

Obviously the spark plugs should be cleaned, and the terminals of the spark plug wires firmly attached. If the plugs have been in use 10,000 miles they should be replaced.

The ignition system, including all wiring and terminals should be checked at the beginning of winter, particular attention being paid to the distributor timing and to condition of the contact points.

If the valves do not seat properly, a leakage of compression occurs resulting in incomplete combustion which hinders starting and also tends to foul the spark plugs.

Attention to these suggestions will eliminate your starting troubles this winter and cut down the wear and tear on your nerves as well, according to the Chevrolet engineering division.

# DURANT LOWER PRICES OF CARS

Since the news was broadcast early last week that the Ford price drop, recently announced, had been met by the Durant Motor company of California in the form of drastic price reductions covering four-cylinder models, Dick Rindt, local Durant dealer, has been kept busy answering inquiries from motorists regarding these slashes.

"In my opinion it is one of the outstanding automotive announcements made this year on the Pacific coast," he declared. "Through it, motorists of the west benefit on account of the strong financial position of the Durant Motor company of California at this time. The factory has been able to effect great savings in its production because of the increased volume and these savings are now being passed on to the buying public."

When Norman deVaux, president and general manager of the western Durant factory, announced the reduction in the Durant four cylinder models he went a step further by also dropping the Pacific coast prices of the Durant Six-Sixty line.

"It is interesting to note, in discussing the sensational reductions now in effect, that the new price of the Durant Four-Forty sedan on the Pacific coast is now lower than either the Ford Fordor three window sedan or the Ford Fordor two window sedan."

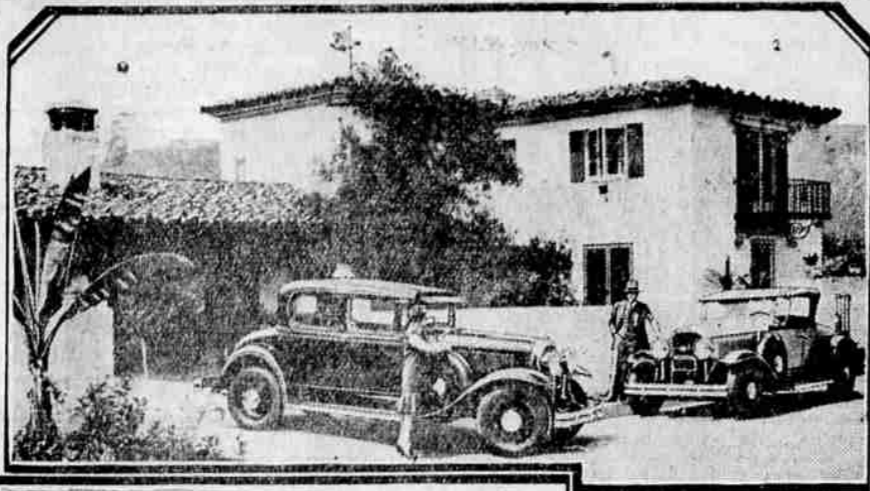
**SEEK HARDY STRAINS MEDIUM RED CLOVER**

**EAST LANSING, Mich.** (AP)—Michigan State college is cooperating with county agricultural agents in an effort to locate hardy strains of medium red clover. Farmers who have grown the same strains for 15 years or more are being listed.

Seed of these strains will be used in the development of more hardy red clovers for planting in northern states.

One farmer in Montmorency county, upper part of the lower peninsula, has had the same strain of clover on his farm for 23 years.

# Two Cars Keeping Peace in Family



George Herriman, famous cartoonist, originator of "Krazy Kat," likes harmony in his family, so he purchased two cars—both 1930 Buicks. Pictured here is the satisfied couple in front of their attractive Hollywood home. At the left is the artist's impression of just what is going to happen on his first trip to the cactus land—the home of his picture folk.



Motorists who are inclined to take chances probably will be surprised to learn just how much ground they are covering, each second. Here are the sobering facts:

10 miles an hour covers 14.66 feet a second.

15 miles an hour covers 22 feet a second.

20 miles an hour covers 29.66 feet a second.

30 miles an hour covers 44 feet a second.

35 miles an hour covers 51.33 feet a second.

40 miles an hour covers 58.66 feet a second.

45 miles an hour covers 66 feet a second.

50 miles an hour covers 73.33 feet a second.

55 miles an hour covers 80.66 feet a second.

60 miles an hour covers 88 feet a second.

If there is one too many for the seating capacity of the car, the one who doesn't care to go this time is mother.

Signal: A motion made by the driver in front just before you cross him.

"If caught by traffic in the middle of the street, the best thing to do is stand still," says an expert.

And if time permits, scribble a farewell message on the back of a visiting card.

Joe: "He dabbles in oils a little."

Jim: An artist?

Joe: No, and auto mechanic.

Student on a steamship for the first time pointed to the lifebuoys and asked, "I say, Captain, what's the idea of all the extra tires?"

The American home is slipping declares an editor. Then it ought to stay off the roads until they dry off.

Helen: "Does your fiancée know much about automobiles?"

Carl: "Heavens, no! She asked me if I cooked my car by stripping the gears."

Customer: "I want to pay cash for this car."

Salesman: "Yes, sir. But it's so unusual that I'm afraid you'll have to give us a reference or two."

"Robbed hair is like the automobile. It isn't the original cost that counts so much as the upkeep."

Salesman: "Let me sell you a radiator cap."

Dumb one: "Now, I don't like caps—that's why I got this derby."

The automobile has become the peoples' heaviest liability.

Who'll Deny It?

"The automobile has cut down distances"—Yeh—We're all closer to the poor house.

Three small boys with spades and buckets were building model motor-cars in the sand. The first boy had piled and patted the sand into a passable semblance of a racing car, the second had made a touring car, but the third boy's construction was without shape or form.

"What sort of a car is that?" asked the first boy. "It looks like two or three cars all together."

"That's just what it is," replied the boy, loftily. "It's a collielon."

Mud beats dust. The passing car splashes it on you, but can't make you eat it.

There will always be cheap cars for those who are rich enough not to care what people think.

The daily race between automobile drivers to beat each other to street crossings brings prosperity to hospitals and garages.

More Statistics

Being a pedestrian is now listed by insurance companies among the hazardous occupations. (Copyright, Moss Feature Synd.)

Portland—Sunset Pacific Oil company of California purchased 10-acre tract north of General Petroleum company plant on St. Helens road in Linnton for erection of storage plant.

Roseburg—Postal Telegraph Co. will be transferred from present location on North Jackson street to lobby of Umpqua hotel.

ROME (AP)—A government order abolishing entrance fees to national museums and art galleries has brought floods of visitors from among the poorer classes. The former admission of 12 lire—65 cents—represented a whole day's living expenses to an Italian workman.

BUENOS AIRES (AP)—Because of a "mad dog" scare, the Hungarian Society for Prevention of Cruelty to Animals has approved a proposal that the 10,000 canines of this city be vaccinated against rabies. Medical authorities also endorsed the project.

# MICHIGAN POLICE HAVE RADIO CARS

"With the purchase of seven new radio-equipped Plymouth sedans, Highland Park, Mich., becomes the first city in the world to completely motorize its police force," according to Chief of Police William I. Cross, of that city. These Plymouths, with two Chrysler models previously purchased, comprise the complete fleet that enables the entire force of eighteen patrolmen to cover their beats quickly and efficiently.

"While other cities have used radio-equipped automobiles to advantage for some time," Chief Cross explained, "Highland Park is the first city to completely motorize its force with this equipment. The only officers on the force who are not riding in radio-equipped cars are those who are assigned to traffic duty at the important street intersections and a few employed in the business district to inspect the doors of business establishments to see that they are properly locked."

"The advantages of such a system are numerous," he continued. "Now, instead of one officer patrolling each beat we have two traveling in each car. These two officers in their car cover the beat in 20 minutes whereas before it took one officer, walking, three hours."

"We have checked the progress made by the patrolmen and find that now the entire city is covered eight times as often as before."

In addition to the Plymouth cars, two patrol wagons are likewise equipped with radios.

Some idea of the efficient manner in which these cars operate is to be found in the police records. One of the first calls to be received after the cars were put in operation was a bank alarm. Within two minutes after the alarm had been turned in, one of the Plymouths with two officers were at the bank.

Another advantage of the system is that it is an easy matter to keep in touch with each patrolman. Should the station wish to get in touch with any particular officer, he is spoken to over the radio and he immediately calls from the nearest phone. The average length of time necessary to get in touch with an officer has proved to be thirty seconds.

# Front Seat Advice

Dust in your brakes makes trouble and can be easily blown out with an air hose, or a reversed vacuum cleaner. If your brakes are the new internal kind, apply the hose to the inspection hole and revolve the wheel while blowing.

You will notice that any list of the pressure prescribed for ballroom tires of different sizes gives figures in odd pounds. That shows how important exact pressure is.

The great majority of breakdowns on the road are due to ignition trouble. Have your ignition system checked regularly.

Some people have to change the oil in the crank case oftener than others because they habitually drive faster. At fifty or fifty-five miles an hour, oil consumption is more than twice as rapid as at thirty miles an hour.

# DODGE ENGINEERS IMPROVE CLUTCH

Dodge Brothers engineers have won another victory in the constant war against unnecessary noises in motor cars.

Exceptional quiet and smoothness in operation have been effected in the Dodge Six models by the complete insulation of sound between the engine and transmission. This striking improvement was completed by the substitution of springs for rubber in the clutch, and engineering tests have proved the advantages of this design at every car speed.

Without proper insulation of sound between the engine and transmission, engineers point out that a chain of events similar to broadcasting operations is likely to take place. The motor fills the role of the sending station, the clutch takes the place of the receiver and the transmission becomes the loud speaker.

Often cars appear to have a noisy transmission, when in reality the transmission may be unusually quiet. It is blamed for sounds that originate in the engine, pass thru the clutch, and are thrown out by the transmission as if it were a sounding board. In the Dodge Six, this occurrence is now impossible. Sound, which is due to vibration, is effectively absorbed by the new clutch coil springs, and never reaches the drivers ears.

One of the interesting features of these coil springs is that their vibration period changes with the amount of compression or tension on the spring. As long as the springs are undergoing a constant change in tension during the operation of the car, it is certain that they can never tune in with any vibrations that take place in any other part of the car. Being of finely tempered steel the springs will always return to their original shape, and are not subject to permanent distortion.

# Engine Built Like A Barrel To Help Flyers

A barrel engine, which, unlike previous motors of the type, has a fixed barrel, was demonstrated at the British Aero Show in London. A similar engine, the "Almen," was flown several years ago in America, and another was flown recently in Switzerland, but both these had revolving barrels, and met the same objection as was applied to the now discarded Grove rotary engine. The new motor, which has been tested successfully in a six-horsepower compressed-air-driven model, is a radical departure. The advantage claimed for the barrel type is the very small frontal area, which causes less wind resistance and makes nose cooling for an airplane more practical.

# Like A Barrel To Help Flyers

LUEBBECK, Germany (AP)—Statistics made public by the municipal library here show that men prefer books dealing with ethnology, history, adventure and humor while women read biographies, women's stories and romantic novels.

# Where Is Your Ox Cart License?

Where is your Ox Cart License? A sign for the 1930 REP. DE EL SALVADOR CARRETAS is shown. The sign is a diamond shape with a border and text inside.

# Where Is Your Ox Cart License?

A Portland, Oregon, concern has just received an order for 22,000 ox cart license plates from El Salvador. Upper left—The ox cart plate. Right—The immense press making the plates. Lower—Domestic type of plate which is about to be placed on this Oakland All American Sedan.

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# World records have made STUDEBAKER world's leading builder of EIGHTS

Successes never before approached in the history of transportation have won for Studebaker Eights an unchallenged first place in public approval.

More Studebaker Eights are built and bought than any other Eight because, by establishing eleven world records and more American stock car records than all other makes combined, Studebaker Eights have proved their right to preference.

Beginning with the most extraordinary speed and endurance achievement of all time—30,000 miles in 26,326 consecutive minutes—and climaxed recently by climbing Pikes Peak in

the fastest time ever recorded by a stock car—the brilliant successes of Studebaker Eights are the marvel and envy of all motordom.

These matchless triumphs have been won not by specially built Studebaker Eights but by stock Studebaker Eights—duplicates of those champion cars you can buy from any Studebaker dealer. In your new car, get this unquestioned championship ability of a thrifty new Studebaker Eight—at the customary cost of a Six. Seventy-seven years of Studebaker experience and integrity back your judgment.

**Studebaker Eights cost no more to buy or to operate**

Dictator Eight Sedan	\$1285
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*Four-Door Sedan Models. Prices at the Factory*

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**Tungsten Carbide Penetrates The Hardest Metals**

Tungsten carbide, the hardest compound known to science, for years a mere curiosity, has found a commercial use, for with it hard alloys, including manganese steel and armor plate, can be machined in lathes, planers or shapers, says Popular Mechanics Magazine. Tungsten itself, as used in electric light filaments, is so soft that it can be drawn into fine wires, but when combined with carbon it makes a substance second in hardness only to the diamond, and will scratch a sapphire.

TIMBUCTOO, Upper Senegal (AP)—This city, which used to be the symbol for forty miles from nowhere, will be terminus of an automobile race next January. The contest will start from Algiers and the winner will be expected here five days later. A century ago a French explorer took 30 months for the trip.

RIO JANEIRO (AP)—Forty thousand undernourished children live in this city according to a survey made by officials who are campaigning against tuberculosis. This total is more than half of the 75,000 school children in a city of 2,000,000 people.

**ALL ALONE!**

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