OWNER SHOULD CLEAN DIRT FROM HIS CAR

This Means Getting It Out of Hidden Parts.

UNSEEN GRIME THE WORST

Thorough Cleaning of Car in All Parts Should Be Done to Get Long Service From It.

Dirt is undesirable, no matter where it is, but the average automobile owner has yet to learn that dirt on the running gear does more than merely cover up some painted or unpainted metal. Joints seemingly as tight as a mechanic can get them let dirt pass through.

The reason for the dirt being so undesirable near working parts of the chassis is not so much because it doesn't look well, but because it eventually gets to a moving surface and starts rapid wear. If you own a watch with a screw back on it and keep that watch in one of your pockets where odd things are put occasionally, just remove that screw back and notice the dirt that has worked its way in. This is mentioned merely to show that dirt goes into very small cravices quite easily.

Around the engine and other parts of the car are supposedly tight joints in addition to actual openings. Take the front and cover, commonly called the timing gear case cover. Vibration may loosen a few of the holding nuts, allowing the cover to move away from the crankcase a small fraction of an inch. With an accumulation of dirt over the cover, some of the dirt is bound to get to the gear teeth. Dirt and lack of lubrication of front end gears are responsible for rapid wear and noisy operation.

Kerosene Bath for Engine.

Every owner ought to keep the engine clean by an occasional kerosene bath. Spray kerosene all over the engine and wipe off every bit of dirt you can. This goes for the crankcase as well as the parts that you can see when you lift the hood. Dirty oil, oil with sediment, old oil not changed for some time, are all causes of rapid engine wear.

How many owners ever see to it that the combination breather and oil filler is clean on the inside? In some designs there is every chance for a quantity of dirt to settle on the inside and this is washed down into the crankcase when the next oil filling is made.

A dirty engine means a loss in efficiency and a premature trip to the repair shop, where the cost of parts replacements will be higher than expected. Take the average Ford, and many of the larger cars, and examine even the outside of the ignition unit. The Ford timers are usually covered with mud and dirt and this gets inside, cuts the segments, interferes with proper ignition and brings about the need for a new timer in a few months.

Look inside a timer that is dirty on the outside and you will find dirt also. Generators and starting motors on the average car do not get very much attention of any kind by the owner, but they deserve a good cleaning. Some starting motors are not fully enclosed, while others, even when covered, seem to accumulate dirt.

When the owner has a few hours to spare during any one month he should give the engine a thorough cleaning, removing dirt from all joints and oil holes.

The underneath parts of the car are admittedly hard to get at, but that should not be an excuse for total neglect. Underneath the car there may be many places that require oil through small cups, oil holes, etc. While some manufacturers are so far behind as to continue to use oil holes in exposed places, the owner of a car using them should not let them become filled with dirt.

Keep Oil Holes Clean.

A car with exposed oil holes on cross shafts and other parts should have automatic feed oil cups installed by a mechanic.

Sometimes brakes are hard to operate after a trip over muddy roads. It is because mud gets into the joints at the brake bands and other places in the braking system. These parts cannot be properly cleaned merely by wiping. One must dismantle them to get a clean working surface that will operate freely when lubricated. Cleaning of this sort prevents rusting and certainly goes a long way toward making for better handling and car operation.

In filling the transmission and rear axle with oil or other lubricant be sure the filling hole or opening is clean. Pouring oil into a small opening with dirt all around the outside is bad, because the dirt goes right in with the oil. Then you hear gear noises and wonder how it happened so suddenly.

Universal joints at best are hard to lubricate and even if covered with a leather boot are not proof against the ravages of dirt and mud. The more dirt you let accumulate around these parts the more dirt will get to the working surfaces.

It pays to have the car washed underneath, but it also pays to wipe the surfaces after spraying on water. The wiping is necessary because some of the dirt sticks fast. Look over the smaller parts of your car, the parts that are hard to see and get at, also examine parts that don't give you any trouble. You don't have to do any more than to clean them and lubricate to make them run for a longer period.

MAKING DISTILLED WATER

Car Owner Can Get It for Himself by This Process.

Distilled water is, of course, absolutely essential for the storage battery. It is not always possible to procure this easily and any car owner can make his own distilled water by means of a very simple apparatus.

Have a length of annealed copper tubing coiled, so that it will fit in a dishpan. Connect the end of the copper tubing with an ordinary tea kettle by means of a short piece of rubber tubing. The other end of the tube is curved so that the water passing down will drip into a bottle or other container. The dishpan in which the coil rests is filled with cold water, frequently renewed to keep it cold.

The steam so produced passes out of the spout into the tube, through the coil, where it is cooled and condensed back into water again and is finally collected for use in the bottle at the end of the copper tube.

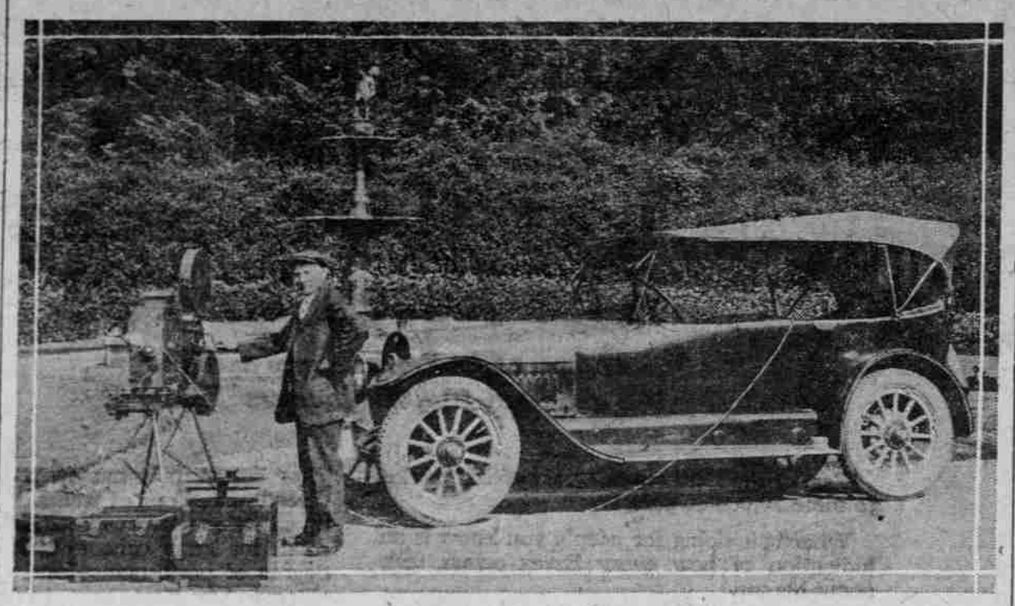
REPUBLIC MAN GOES EAST

O. W. Roberts to Try to Get More Trucks Out Here.

O. W. Roberts, president of the Roberts Motor Car company, left Portland Tuesday for Alma, Mich. He is making the trip to try to get more Republic trucks—lately it has been difficult to obtain enough to supply the demand.

While in the east Mr. Roberts will attend the convention of the Republic Trucks Distributors' association, of which he is a director. Mr. Roberts will also visit the new Republic factory at Cleveland, Ohio.

RUNNING A MOVING PICTURE OUTFIT FROM HIS MITCHELL SIX.



HERE'S A MODERN USE FOR AUTO PROBABLY NOT CONTEMPLATED BY THE MANUFACTURERS.

Charles H. Foster, who does work in connection with the Albertina Kerr nursery and the Louise home, has equipped his Mitchell six with a power plant whereby he operates a motion-picture machine in conjunction with lectures in country schoolhouses and churches and wherever electric current is not directly available. Directly under the front seat of the car is mounted a generator, from which a belt connects with a line shaft upon which a friction pulley operates against the flywheel of the engine. This pulley is controlled by a small lever convenient to the driver. Upon the cowlboard are special voltmeters and ammeters to show the amount of current generated. In the tonneau Mr. Foster carries large-capacity storage batteries, and he says he can, if he chooses, generate electricity as he travels, though he finds it best to do this as seldom as possible. Outwardly the Mitchell presents no unusual appearanace unless it be, when all equipment is aboard, that of a car laden for a long-distance tour.

RING HOLDS TRUCK RIMS

NEW FEATURE USED BY GOODYEAR COMPANY.

Device Highly Recommended Because It Enables Tire to Be Slipped On and Off Easily.

The rapid advance of the motor truck into a bigger and broader field of service, following the adaptation of pneumatic tire to this new agent of transportation, has been one of the marvels of this decade. Its great mobility and its adaptability to nearly every kind of service have made for it a permanent place in the transportation world.

From its former limitations as to speed and cushioning qualities, the pneumatic cord truck tire has brought the motor truck into a class where its capabilities of making quick deliveries of materials in good condition are determining factors in computing its value.

But without a suitable rim even the pneumatic truck tire could not have brought the motor truck to its present degree of usefulness.

"Most of the pneumatic truck tire rims used now are modifications of rims that have been used with automobile tires," says Atkins, rim expert of the Goodyear Tire & Rubber company. "Present makes," he says, "are somewhat similar, but all are modifications of the first Goodyear detachable rim, which attained widespread favor because of its dependability and the ease with which it permitted tire changes.

"With big pneumatic tires tire changes are not so frequent as with other tires, for the treads are thicker and therefore withstand puncture more easily. But when changes are necessary they can be made easily and quickly, because of the 'side ring' feature of the detachable rim.

"With the removal of this ring, which is used to hold the detachable part of the straight side rim in place, the tire can easily be slipped off or on as occasion may require. This is a most important feature and one which has been a deciding factor in this firm's success.

"We have been specializing on pneumatic truck tire rims and owe much of our success with pneumatic truck tires to the completeness of our rims. Just how they are regarded in the motor truck world is indicated in the fact that 75 per cent of the trucks now leaving their factories on penumatic truck tires start their careers on Goodyear rims. The side-locking feature has now been adopted on all steel wheels having the base of the rim cast as a part of the wheel.

"Straight side rims with this Goodyear locking ring feature are now obtained in all sizes up to 44x10, the truck size being 36x6, 38x7, 40x8, 42x9 and 44x10, accommodating all capacities of trucks up to five tons.

"We have been using these detachable rims on our big Akron-Boston trucks for more than two years, where, under the varied conditions of long-distance travel, they have performed consistently and dependably."

GLIDDEN TOUR COMING BACK

Old-Time Auto Classic May Be Run to Pacific Coast.

Rumors that there will be a Glidden tour in 1920 will not down. It was proposed to revive this famous motor classic for this year, but automobile manufacturing conditions became such that the man who would be called upon to put the undertaking into action could not devote any time to it. Manufacturers also have so many problems connected with this production that require their undivided attention that the proposition cannot this year receive the support that it merits.

GOOD TUBE TIRE INSURANCE

Fish Rubber Company Urges Motorists to Be Fair to Casing.

Few auto owners nowadays would be content without automobile insurance, yet how many there are who have no protection on their tires. A good casing represents an investment which in proportion should be as much covered by insurance as the car itself, more so perhaps, because it is more susceptible to wear.

There is such a thing as tire insurance, too, although many fail to see the protection in that light. The very best tire insurance in the world is a good inner tube.

Put inside your casing a tube that is dependable, one that will outlast the wear of the casing itself, and you have protected yourself against casing damage.

Good tubes cost no more than poor ones, yet many are prone to consider the tube a necessary evil, an item of equipment that is worthy of only minor consideration.

The Fisk Rubber company, makers of Fisk tubes, point to this oversight on the part of many motorists as the greatest source of needless tire expense. Twenty years' experience in the manufacture of tubes has shown that pure Para rubber is the most satisfactory material for tube making and that all of the substitutes and composition formulas ever attempted have broken down under test.

Consequently the Fisk company makes but one tube, that of the best grade of pure Para.

HE HEADS CHEVROLET COMMERCIAL CAR BUSINESS IN NORTHWEST.

Frank E. Welch

RAIN-PROOF WINDSHIELD

THIS IS LATEST CREATION OF COLE EIGHT ENGINEERS.

All-Season Model Has New Shield Device That Keeps the Vision Clear in All Weather.

Dozens of near miracles wrought by the far-sighted pioneers of the motor-car industry have made its history the most romantic of any American industry. Having brought the open touring and sport models up to a point approaching perfection, these restless souls, never content to let well enough alone, have directed their attention in the past few seasons to improvement of all-season models.

Keeping pace with the popularity of winter driving, the Cole Motor Car company has brought forth many improvements on the all-season car.

The announcement of a windshield which, in a driving gale, will keep all rain and snow out of the interior of the car and at the same time yield the driver a clear view of the road through a section unobstructed even by any portion of the glass will create an unusual ripple.

Although to the experienced motorist it may seem almost impossible that such a windshield can be built, all this has been accomplished. The Cole storm-proof, clear-vision windshield consists of two distinct sections forming a "V" at the roof of the car and a separation of about ten inches at the cowl. The outer section is composed of two panes of glass and the inner section of one.

When adjusted for a storm the lower pane of the outer section is turned out until its upper edge is on a level with the upper edge of the inner section and the top pane is adjusted out until an open space of about two inches is left between the bottom edge of it and the upper edge of the lower section.

When the car is in motion a vacuum is created between the two sections of the shield and a current of air is drawn from within the car instead of into it. Snow and rain are thus forced out in a steady stream at either side between the two sections of the windshield, while the open space of two inches on a level with the driver's eyes is kept free of snow or rain by the suction created.

The storm-proof, clear-vision windshield is one of the many exclusive Cole features which lend new comfort to driving in all seasons.

Gasoline Logic.

A simple but frequently forgotten precaution in regard to filling the gasoline tank is that the mouth of the gasoline can should be carefully wiped off before filling to remove any dust or dirt that may have lodged there. Otherwise, in the absence of a strainer, the gasoline will carry the accumulated dust into the tank and later there will be trouble with clogged pipes or carburetor.

TRUCKS MOVE MELON CROP

MACK FLEET MIGHTY USEFUL IN IMPERIAL VALLEY.

Work That Would Keep 1260 Horses Busy Done Expeditiously by Only 144 Trucks.

When in all parts of the United States persons seated at the breakfast table enjoy the luscious Imperial valley cantaloupes, practically none gives thought to the relation existing between the sturdy motor truck and their table delicacy. It is a fact, nevertheless, that were it not for motor trucks there would be no Imperial valley cantoloupes, as the district in southern California that has become famous for its melons depends absolutely upon motor transportation to deliver the crops.

Thousands of acres in this valley are devoted to melon raising, and "melon" in the Imperial valley means cantaloupe. The soil is very fine silt and sand and to deliver the melons to the railroads for shipment it is necessary that the trucks go right into the fields and take on the loads. This is a severe strain on the trucks and one that horses have been unable to withstand. In addition to the hard pull, the heavy loads and speed required, the heat is intense.

When the shipping season is at its peak, it is estimated that it would require 1000 teams daily to move the crop. This means it would take almost as many freight cars to bring feed for the horses into the valley as it does to take the melons out. A large number of Mack trucks has been giving valuable service in moving the melon crop this year. The big loads that Macks carry and the ability with which they get out of the fields when loaded in conjunction with the cooling properties of the engines have made Macks very much in demand, according to reports received by F. C. Atwell of the International-Mack corporation, distributors here for Mack trucks.

A crate of melons averages 70 pounds and 360 crates fill a freight car. Under ordinary conditions at least 200 carloads are shipped from Brawley, in the heart of the cantaloupe district. This means 2520 tons must be moved. The trucks average four tons to the load, due to the tendency to overload. The average haul is four miles and the trucks make five round trips daily. The best a two-horse team can do is two trips a day. Striking an average, 144 trucks do the work that would require 1260 horses. Not only would it be almost impossible to obtain that many horses, but the water they would consume would irrigate a good-sized melon field and water is valuable in the Imperial valley.

ESSEX MOTOR SMALLER

LEADS WAY IN TREND TOWARD REDUCED ENGINE SIZES.

Record of Car, Designed for Maximum of Economy, Proves Success of Design.

"The general demand of the motoring public for greater economy without the sacrifice of power, endurance or comfort is the greatest factor behind the announcement of the Indianapolis speedway that the 500-mile race in 1920 would be for cars of 183 cubic inches displacement," said C. L. Boss, local Essex representative.

"The Indianapolis announcement followed the action of French officials in cutting down the engine sizes of cars to be entered in the grand prix. The previous limit at Indianapolis was 300 inches and the reduction is intended to foster greater efficiency in passenger cars along the lines exemplified by the Essex.

"The record of the Essex is proof of what may be accomplished along these lines. The Essex motor is only 29 inches in length over all, and the piston displacement is 179 inches. Nevertheless, due to its advanced design, it develops more than 56 horse power. Thus it obtains greater economy through lighter weight without sacrificing power, performance or endurance.

"As the history of automobile development is largely due to the experience gained in racing, it is only natural that the Essex should have been designed by engineers who have gained world-wide fame for the endurance and speed of their cars. Built in the Hudson factory in Detroit, the Essex is the perfect development of years of successful achievement in building fine motor automobiles. The result is an advanced type of efficiency, performance and comfort.

"For years the tendency has been toward a car of this character. This is graphically illustrated by speedway requirements in recent years. Most of of unlimited piston displacement. In 1911 and 1912 cars were limited to 600 inches, which was further reduced to 450 inches in 1913 and 1914. The standard for 1915, 1916 and 1919 was 300 inches.

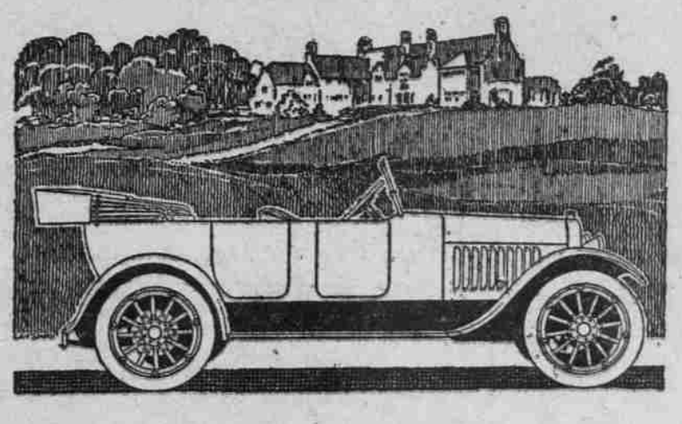
"This shows the constant search for greater lightness and economy combined with performance and endurance. These results have been achieved in the Essex through perfect balance, which eliminates destructive vibration and thus lengthens the life of the car and by an improved design of the gas passages which makes possible the utilization of every drop of fuel fed to the engine.

"The result is a car of long life, light enough to be the most economical in upkeep and with such a tremendous reserve of power that the trouble of changing gears is almost eliminated."

Business Good for Kortz.

CHEHALIS, Wash., Aug. 16.—(Special.)—J. P. Kortz of Chehalis has leased G. W. Glover's Tower avenue garage in Centralia and will shortly open a branch store in that city. Mr. Kortz has the agency for Studebaker and Oakland cars. He is arranging to occupy what will be Chehalis' most up-to-date garage, one being erected at Market street and Park, opposite the St. Helens hotel corner, 100x105 in size, with a large basement in addition to the main floor.

A HOT SPOT Chalmers Never Says "No"



YOU never hear a groan or a whimper of complaint from this present day Chalmers.

It does what you ask of it. It takes a command like a willing servant and responds like a thoroughbred.

And it wears well; not only in its "inner works," but in a way that you never grow tired of.

(So many persons want a new car every other year!)

The more it runs, the gentler, the easier it seems to get over ground.

You will find the underlying cause in Hot Spot and Rams-horn, two devices which have advanced Chalmers two years ahead of other cars in engineering.

They "crack up" and condition the raw gas in a way that produces terrific power with pussy-like gentleness. You obtain a brand new sense of driving ease, and when you want to "let loose" in a quagmire road or on a tortuous hill your Chalmers never says "No."

You'll find it to be, as so many others have discovered in recent months, one of the few great cars of the world.

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