

MOTORS TROUBLES VASTLY FEWER NOW

Driver in Old Days Had Real
Job on His Hands.

ECONOMY NOT POSSIBLE

But Nowadays Greatest Needs Are
Lubrication and Intelligent
Handling of the Car.

Not many years ago, when the motorcar industry was still in its infancy and the chugging road user was regarded variously as an instrumentality of the devil or a toy of the idle rich—except by those who

and often those who have had sufficient experience with the motorcar to know better, take it for granted that as long as the oil gauge on the engine registers "full" the lubrication problem is properly disposed of. A seized engine bearing is very inconvenient and expensive, to say the least, but it is far less dangerous to life and limb than a steering knuckle worn through for lack of proper lubrication and ready to snap at any moment.

Practically every motorcar manufacturer today supplies some form of lubricating chart. The novice should study this chart and learn the location of all oil and grease cups, and then apply this information faithfully. High-grade oil should always be used, as inferior lubricants are expensive at any price. Even good oil wears out in time, however, and the careful motorist will change the lubricant in the crankcase of his motor every 1000 miles, or even oftener. Carefully drain out the old oil, flush out the crankcase with kerosene, or better still, with a quart or more of fresh oil, and refill crankcase with clean oil. The used oil should not be employed again except for lubricating coaming leaves or external parts exposed to road dust, as it contains grit destructive to bearing surfaces. It may, however, be made usable by a thorough filtering process. Carburetor adjustments vary on the

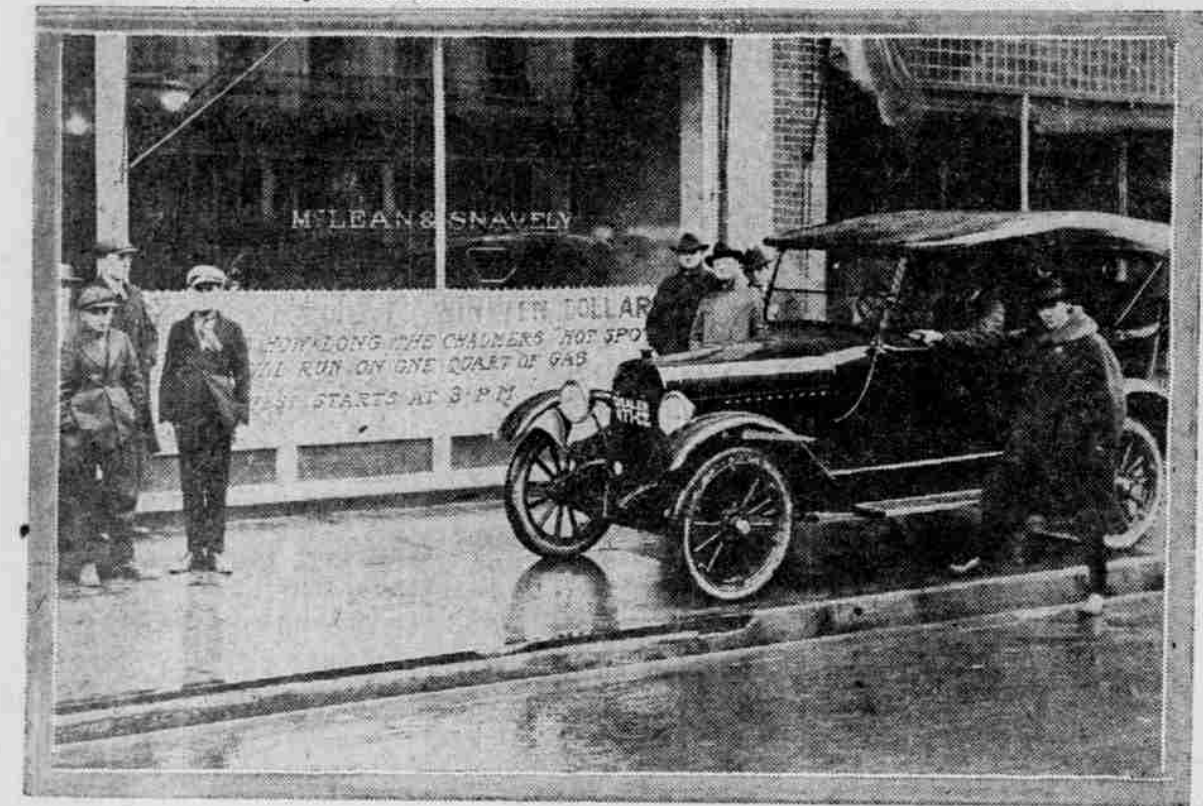
BIG RACE MEET IS TODAY

FAST RACERS TO COMPETE ON
NEW LOS ANGELES TRACK.

This Will Be the Last Motor Racing Event With Present Size of Auto Engines.

LOS ANGELES, March 20.—Speed as sensational as that developed in the recent opening races will be the programs at the new Beverly Hills speedway Sunday afternoon, March 21, when the fastest drivers of the opening race will compete in a series of three 50-mile sprints. The famous drivers are repairing, rebuilding and speeding up their motors in preparation for the triple sprint, and with the shorter distance set each of them will be in shape to tear around the track at considerably faster speed than even that of the 250-mile opener of February 28. To the pilot making the fastest 50 miles will go the title of Los Angeles speedway champion and a special prize, in addition to a share in the \$15,000 cash prizes offered for the winners in the March 21 classic. This

THIS UNIQUE GUESSING CONTEST HAD ALL OF PENDLETON GUESSING.



How long would the Chalmers Hot-Spot motor idle on one quart of gasoline? was the question, and three of the 400 guesses were within three seconds of correct. During the Pendleton automobile show, March 11-13, McLean & Snavely, Chalmers dealers, put on a unique stunt to create interest. They offered a cash prize of \$10 to the person guessing closest to the time a Chalmers Hot-Spot motor would run, idling, on one quart of gasoline. An officially-measured quart can full of gasoline was attached direct to the carburetor and the gasoline tank disconnected. The test was made on the third day of the show, with half the town looking on. Three of the guesses were 70 minutes, and the motor idled 70 minutes 3 seconds to the dot.

owned them, whose private opinions were unpublisable—economy of operation was of small moment. The question was not: "How cheaply can this machine be run?" but rather, "Will it run?"

Gasoline was hardly more than a waste product, sold at a very low price and of tests that made the problem of carburetion a simple one, even in winter. The trouble was the rain rather than the exception, for practically every machine of that early day was underfired.

The tendency was to apply narrow tires to high wheels to secure more clearance and better riding qualities, writes David Friedman in the Brooklyn Eagle. Needless to say, mechanical refinements were still in the embryo stage and delicate working parts were rashly exposed to the destructive effects of road dust and the elements.

Driving Them Was Luck.

Under such conditions, it may be readily imagined, economical operation was more a matter of luck than of intelligent care. Today conditions have changed. Motorcars are no longer vehicles of chance. They are aggregations of highly perfected units, combined to form a harmonious, smoothly operating whole. Working parts are carefully protected from all destructive agencies except unavoidable natural wear. Lubrication is liberally proportioned and even the more pretentious motor cars of today are light compared with the road monsters of the past.

The motorist prides himself today not so much on the number of miles he covers in a given time, on high gasoline mileage and freedom from tire trouble. It is almost a foregone conclusion that a motorist in reasonable repair will get there and back, yet even to the enthusiast endowed with much worldly goods, there comes a glow of pride when he tells how he cut down gasoline consumption or increased his tire mileage.

Only the experienced motorist, taking a personal pride in his car, can realize the satisfaction, economical and efficient operation entails. Many learn what they know about economical maintenance in the school of experience, but a more fortunate few have profited by the experience of others and avoid the rock-strewn byways.

Intelligent Driving Needed. "How can I save money in the operation of my motorcar and maintain it at its highest efficiency?" This question could be answered in a sentence or thoroughly explained in a full-sized book, but it all simmers down to these requisites: Intelligent manipulation, proper lubrication, accurate adjustment of carburetor, and periodic inspection of all working parts.

The writer hesitates to say which is more important—intelligent manipulation or proper lubrication—for it is hardly possible to over-emphasize the importance of either of these requirements. Careful manipulation means not merely the skillful handling of the gear-changing lever, the throttle and the brakes, but the acquisition of an almost instinctive faculty, the indefinable "feel" of the experienced operator, knowing just when to throw out the clutch, when to throw back into second speed, just how rapidly the motor can accelerate in an emergency, and just how long it takes the machine to come to a stop on various road surfaces when dry or wet.

Self-confidence is an excellent quality in a motorist, but over-confidence is likely to be very dangerous to the novice. The beginner, however, permit the temptation to "let'er out" get the better of him, particularly when he is not certain that any emergency of the road that might arise will find him alert and prepared to do the proper thing. At high speed, there is little time for thought and a moment's hesitation has proved fatal. "Make haste slowly" is a good motto to follow and if observed will save the novice much trouble and expense.

Look After Steering Knuckle. Lubrication, on the other hand, while no less important than intelligent manipulation, is a much simpler process. This very absence of difficulty often leads to the neglect of this most necessary function in the care of a machine. Many novices,

various makes and some vaporizing devices are adjusted at the factory with no provision for road changes except for idling. Adjustments where possible, should be made according to the conditions under which the machine is operated. The greatest economy in gas consumption is possible mainly in warm weather and on good country roads.

A weak mixture operates more economically than a richer one. When the mixture is too lean, however, the motor will stall readily and will sputter and pop back until the motor is hot. Winter driving and city traffic require a richer mixture than road travel in summer. It is needless to add that the mixture is even more unsatisfactory and should not be resorted to in any case. Carburetor adjustment should not be attempted until the principles governing the process are clearly understood.

The last mentioned requisite, periodic inspection, is so all-inclusive that it would be impossible adequately to discuss it in an article of this kind.

CHEVROLET MEN USE "490"

That Number Obtained for Phones Whenever Possible.

The figures 490 have a great significance in the Chevrolet organization. The best-known model in the Chevrolet line is the 490 and wherever possible Chevrolet dealers work 490 into their business organization. The Imperial valley dealer has 490 for a telephone number. The telephone number of the J. G. Griffin company, a Los Angeles agency, is Broadway 490, and the Los Angeles retail branch has 490 for the license plates used on the company's demonstrators. To get this number Sam Brown of the Los Angeles branch made application early in 1919 and closely following his application came those of many dealers who wanted the same number.

BAD PLACE IN THE HIGHWAY

Between Cottage Grove and Sagi-naw Is Lots of Mud.

EUGENE, Or., March 20.—(Special.)—Rains of the past two weeks have made the Pacific highway between Cottage Grove and Cottage Grove, where the new grade skirts the hills on the west side of the Southern Pacific tracks, almost impassable. So declare motorists who have passed over that stretch in the past few days. Not alone local motorists but a number of tourists have complained of the bad condition of this piece of highway. As soon as the weather settles and improvement is no longer needed, this stretch probably will be macadamized.

ANNOUNCEMENT

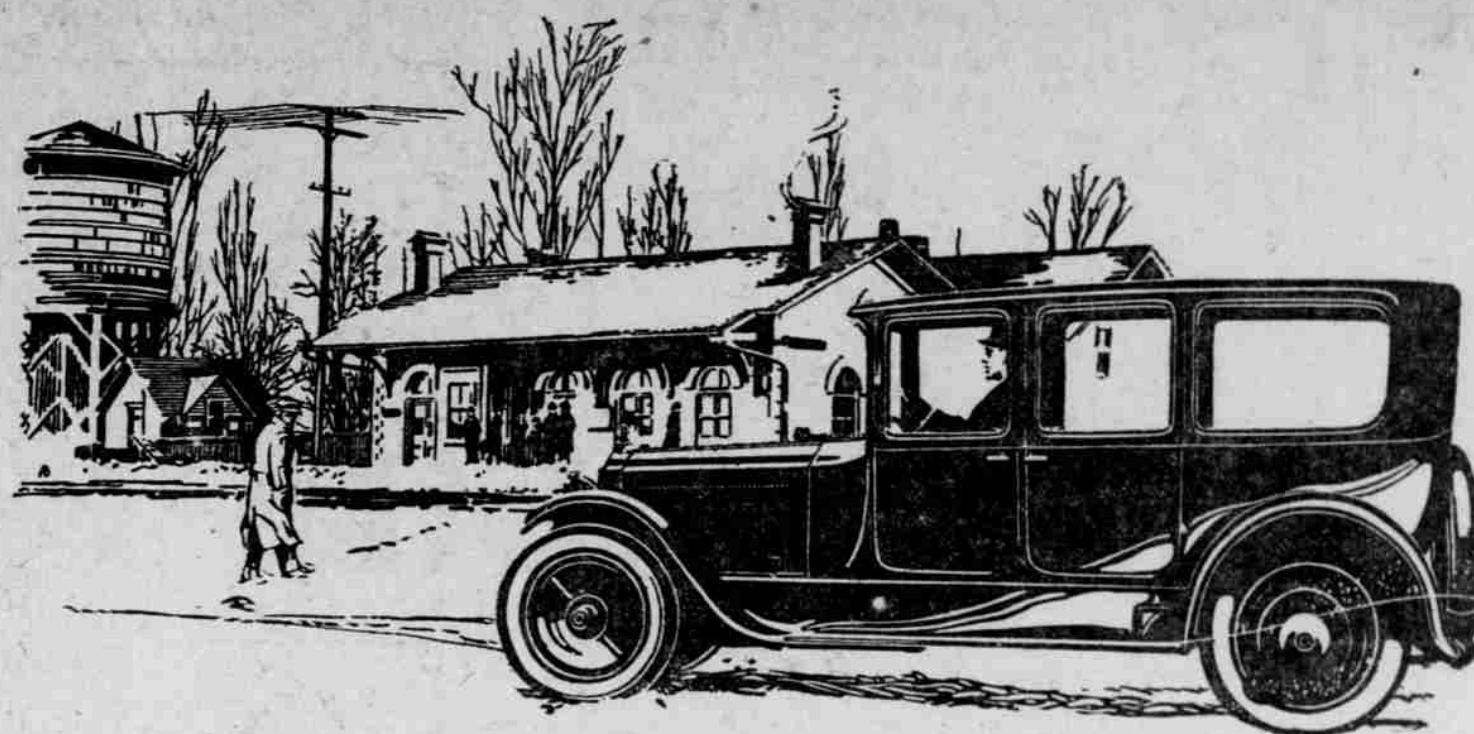
The popular PEERLESS piston ring, introduced in this locality and the state of Washington by W. H. Banes, of 44 North Broadway, will hereafter, together with a line of ignition parts, brushes and special garage equipment, be handled and distributed in the States of Oregon and Washington by the

Motor Equipment Co.

The new member of the firm is Mr. O. C. Potter, formerly in the truck and tractor line in this locality. Mr. Potter will have charge of the sales end, while Mr. Banes will devote part of his time to sales, but most to service. It will be the policy of the new firm to continue the splendid service established by Mr. Banes and to add in connection, ignition in all its branches, as well as special garage equipment.

Mr. Banes desires to thank the garagemen of Oregon and Washington for their liberal endorsement of the PEERLESS piston ring and wishes to advise them that their wants in the ignition line will be as carefully attended to as is the Piston Ring department. It will be our policy to ship, if possible, all orders within one hour from the time that the same is received.

MOTOR EQUIPMENT CO.
44 N. Broadway, Portland, Oregon. Phones Broadway 3327, 3308.



What Can You Afford for Comfort

ANY motorist can point out the comfort features in his car.

But his car likely has different comfort features from the next.

Comfort to some owners may mean deep cushions, easy springs, roominess.

Others will mention a well balanced chassis, easy steering, snug curtains.

Many men think of comfort as freedom from squeaks, knocks, rattles.

Probably you can suggest a number of other things.

The FUELIZER Another Exclusive Packard Feature

Permit us to demonstrate this "little miracle."

WHY shouldn't a man have all the comforts combined in one car?

Surely in these practical days, nobody will confuse

comfort with mere luxury.

REALLY complete comfort that saves the peace of mind and energy of an important man is an economy.

Such a car might easily pay for itself.

Let us call your attention to one fact: You will find more important men, whose keen business judgment everyone admires, riding in Twin Sixes than in any other make of car.

In all our experience with automobiles, we know of none which can so thoroughly justify its purchase as the Twin Six

Ask the man who owns one

PORTLAND MOTOR CAR CO.

Tenth at Burnside St.

a driver may come out of a turn so fast that his car describes a circle before resuming its forward journey or a car may suddenly lock its brakes and catapult diagonally across the track into the fence. Such instances are not uncommon. In the early days of racing throwing a fire from a revolving wheel was almost standard practice and racing men expected it constantly. Now, however, with the wonderful improvement in tires and the methods of holding them to the rims, such occurrences are extremely rare. It is seldom that a tire part company with its car unless the entire wheel works off the axle.

It remained for Art Klein, however, to introduce a new tire-disappearing "stunt" into racing history in the 250-mile championship race just held on the new Los Angeles speedway. While leading a field of veteran

drivers at a speed of 104 miles on hour in the 18th mile, Klein's right rear wheel collapsed in such a manner that every steel wire spoke was sheared off clean at its junction with the rim. His three-wheeled mount crawled about crazily on the track for an instant, while the sheared-off rim with its mounted Goodyear tire kept rolling down the race course. When finally captured this Goodyear tire was intact and still perfectly mounted, although it was subjected to a terrific strain when the rim parted from the spokes. This is the first time within the memory of racing men that a freak performance of this character has happened in automobile racing.

Remove grease, oil and acids from your clothing at once by using a cloth moistened with gasoline.

ANOTHER TIP for

Motor Truck Owners

There are many times when the owners of light or medium-capacity trucks feel the need of a heavy-duty machine, but the purchase cost is too great and they decide to continue with their present equipment and lose the extra profit. This experience has also come to operators of the largest trucks.

To those truck owners who want to meet this situation and double the hauling capacity of their machines we offer the complete

LEE LINE

TRAILERS — DUMP BODIES — LOADERS

"The Lee Line Makes Motor Trucks Pay"

William L. Hughson Co.

60 N. Broadway at Davis Broadway 321

San Francisco, Oakland, Los Angeles, San Diego, Seattle, Portland.

Oldest Motor Car Organization on the Pacific Coast.

SERVICE FIRST

Install the time-tried piston rings



For nine years these rings have stood the test—made good. And time is the severest test of any product.

Genuine McQuay-Norris **LEAK PROOF** Piston Rings, by their uniform action on the cylinder walls, have stopped piston ring leakage, increased power, decreased carbon and saved fuel and oil.

They are made in every size and oversize to fit every make and model of motor.

Your repair man can get the proper sizes for you promptly from his jobber's complete stock.

McQUAY-NORRIS MFG. CO., St. Louis, U.S.A.

To Control
Excess Oil
Use



A special ring for
motors that pump oil.
Use in the top groove
of each piston. In
the lower groove
use McQuay-Norris
LEAK PROOF Piston
Rings.