



BULLETIN AUTOMOBILE PAGE



FUTURE MOTOR TRUCK FIELD LARGELY OVERLAND

In an interesting article in the July issue of *McToll*, there is a significant discussion of the future of the motor truck, which the author holds to be the overland hauling field, rather than in handling the local traffic of the cities.

"In spite of its gratifying progress in general favor and understanding," says this writer, "the motor truck is still, comparatively speaking, so new to its position as a recognized transportation medium that there is danger of its sphere of future usefulness being misunderstood and calculated.

"Such an error, we believe, has already arisen in many quarters with respect to the future for trucks. The majority of commentators on the development of the motor truck industry have always assumed that the great field for this utility vehicle would always remain the city, with its manufacturing and its commercial heavy system of distribution. Now, the fact of the matter is that the real future of the motor truck lies in the short-haul freight field. Inevitably the truck will continue its magnificent work in its familiar field of city activity, but it is demonstrable that many more trucks will be sold for overland work than for urban service.

"Official figures of the secretary of state's office show that there are about 35,000 motor trucks of all classes in the city of New York at the present time. In addition, there are approximately 100,000 horses. Between them, the trucks and the horse-drawn vehicles constitute the 'service of supply,' so to speak, of the metropolis.

"Experience has shown that a motor truck will do the work of four horses, and, accepting this estimate, 25,000 additional motor trucks would supply the intramural transportation needs of New York city, eliminating the horses altogether. This would give us 60,000 motor trucks to serve a population of 6,000,000. Thus we have arrived at a factor, which may be applied to the rest of the cities, giving us an approximate idea of just how many motor trucks can be absorbed in useful work in the urban centers.

"Figures compiled by the United States census bureau tell us that the urban population of the country numbers 42,000,000. Urban in this sense includes a large population that we do not regard as city dwellers; but let that pass, it simply makes our estimate more conservative.

"If the 60,000 motor trucks are adequate to serve 6,000,000 people in New York, it is a simple sum in multiplication to find that 20,000 trucks will serve the entire urban population of the country. And that may be accepted as representing the approximate saturation point of motor trucks in the cities of America."

The author's conclusion is that it behooves the motor truck builders of America to get behind the good roads movement and hasten the day when general overland freight hauling by motor truck is an accomplished fact.

There are many ways in which a car may be unintentionally mistreated, just as there are many ways in which one's own health may be violated to the injury of one's system.

The first point is quite familiar to most motorists, and that is the question of proper lubrication. Still every dealer knows that cars continue to be brought in with bearings burned out, king bolts badly worn and other parts of the car in more or less damaged condition from under-lubrication. Oil should not be used too long because after a time it loses much of its lubricating qualities. This is an especially important item to watch now, because good lubricating oil is not always available at all filling stations.

Another point is the shifting of gears and the use of gears in hard pulling and also the kinds. It should be borne in mind that all motors have excess power because of the extent of which the valve-in-head principle of design has been developed, and because of this surplus power drivers, as a class, gradually form the habit of not shifting to lower speeds, but do everything on high. After a time they gradually grow to hate the idea of dropping to lower speeds, as if it were a reflection on the car or on the driver's ability. This is a condition that should not exist.

Engineers, in putting the excess power under the hood, had in mind the elimination of most of gear shifting necessary in the average car, but as to the avoidance of shifting, it carried too far, or simply for the satisfaction of doing something that the other fellow's car cannot do, puts unnecessary strain upon the motor.

This means that a certain amount of serviceability that was built into the motor is wasted where it could be saved to the medium of mechanical power incorporated in the transmission. It is like asking a man to lift and carry a very heavy load instead of driving it into two or three parts that he could easily handle. In the first case he would still be fresh and ready for other work.

That is what the transmission is for, to conserve the serviceability and lengthen the life of the motor and its intelligent use should be studied by every motorist. Another bad practice is that of letting things go. The old saying is, "A stitch in time saves nine," and it pays to have little things attended to promptly. It really does not take much time to take proper care of a motor car, and every minute spent in doing so spells conservation in capital letters.

Right spring clamps will prevent springs breaking—and they work loose occasionally, especially on a new car. Mud caked on and left there will injure the finish. A scratched fender or any metal part may rust along the scratch and undermine the enamel.

These same ideas apply to practically all of the little things that may happen to motor cars in general service. A weekly inspection will do a great deal toward getting the most serviceability out of a car. The owner who does not have time or inclination to attend to these things himself will do well to see that they are done by some one who is thoroughly competent. They do not take much time, and the man who is mechanically inclined will derive much pleasure in becoming more familiar with the various working units of his car.

A good motor car responds wonderfully to good treatment, not only from the standpoint of satisfaction, but also from that of giving the owner the full amount of transportation that has been built into his car.

Many Ways a Car Can Be Mistreated

Don't follow a car too closely, for it may stop without warning. Don't rush a repair job. Remember, "What is worth doing at all is worth doing well."

Don't start your car with a jerk. Always engage the clutch gradually, and see that the car starts off easily. Don't race the engine. You can not abuse the engine worse than by allowing it to race at high speed without a load.

MOTOR DON'TS

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LOOSE WHEELS ARE SOURCE OF DANGER

Prevention of accident is the ever-present duty of all motorists. The driver should be always vigilant to prevent disaster. Careful driving is, of course, the first consideration, the idea being to always avoid risk.

Next comes the maintenance of the car in good condition. This requires frequent inspection, especially of the wheels. Wheel trouble is too frequently overlooked and the condition of the spokes neglected. Loose spokes make the car unsafe in sudden emergencies, with terrible results in some cases.

The first indication of loose spokes are squeaks and rattles, especially when the car is on the hub or rim. The cracks show that the wood has shrunk. If not attended to promptly, the spokes work looser, till the stability of the wheel is seriously impaired. Then, at a critical moment, the wheel collapses.

The motorist should always take time to see that the wheels of his car are in good running order, for still other reasons. It is much easier and less expensive to correct defects in their early stages than later on. Again, unsound and insecure wheels cause all other parts of the car to deteriorate more rapidly than they would otherwise. If the wheels do not run true, the tires soon wear out, the chassis is warped out of shape, and the foundation on which the motor rests weakens so that the mechanism works under unnecessary and ruinous strain.

Neglected wheels soon reduce a car to a condition of useless junk, whereas a little care as occasion demands adds greatly to its life, pleasure and security.

Army Truck Train Is Big Factor in History

The army truck train, which is now on its way from the capital to the Pacific coast, is accomplishing several things, says Motor Age. It is making history, in the first place. Never before has a truck train attempted as long a tour as this. It is a self-sustained unit. It is bringing home to the different communities through which it passes and is the country at large the need of good roads and the value of building real roads right now. It is bringing home the plausibility of the transportation in time of need by motor truck. It is gathering in needed personnel for the motor transport corps, though this last is merely a minor result.

Transcontinental tours by cars, especially in the early days of the industry, did much to help advance the engineering design and sale of the car. It paved the way for the vast streams of motor cars that follow our city boulevards and keep awake our country highways today. It made possible earlier improvements in construction through that constant endeavor to produce cars that would endure these long trips and come out little if any the worse for wear.

The passage of the army truck train across the continent is fraught with the same valuable results. Though no records of the speed, mileage, and so on of the trucks are to be given out until the end of the trip, its successful completion of approximately half the journey augurs well for a happy ending, and the condition of the trucks and attendant cars at that half way point adds to that augury. Not for nothing have the two truck companies piloted and attended the 62 trucks and some odd motor vehicles this far from sea to sea. The train reached Chicago Heights, which is referred to as approximately the half way point, in excellent condition. Within an hour and a half from the time of arrival the entire equipment had been cleaned and polished until it fairly glistened with efficiency. Which it had. Both in mechanical respect and in appearance, the trucks were no worse for the trip. The men who had them in charge had not been idle during the trip. Not only were the trucks kept in repair, but means for strengthening them and improving them in the future were discovered, to be passed on to the proper parties who can put them into effect for the benefit of the public at large. When the official data is completed, there is no doubt but that the industry at large and, thereby, the public will be benefited immensely.

No matter what the truck train itself may reveal in the way of mechanical excellence or defects, the need and value of good roads will always be allowed to be fully understood. The country will realize more fully the benefits that accrue with hard-surfaced highways. The train will bring home, through its day-by-day records, the greater efficiency of transportation under good road conditions than with bad.

PROPER BURNING OF KEROSENE IS PROBLEM

Yesterday technical authorities spoke of gas engines. Gas engines have a clearly defined field of activity. They are championed by car, truck and the wise tractor manufacturers. Necessity is the answer in the former instances. No successful substitute has been devised yet. Most tractor engineers are deceiving themselves and probably will continue to do so on this important subject.

Today we speak of internal combustion engines. Such nomenclature starts a new chain of thought; visions of multifueled engines. Strange as it may seem, these engines perform best on gasoline. An out-and-out gasoline design would perform better still.

Some day we will know the properties of kerosene and its combustion requirements. A few years ago steam engineers woke up to the fact that coal was different. Now they burn coal with more success.

We realize now that kerosene is difficult. Burning methods must change. What factors will change we do not know exactly, so let us not deceive ourselves into thinking that we are burning kerosene successfully for we are not. When rapid changes in tractor drawbar load can be handled without having the engine falter, hesitate, gasp, emit volumes of unburned gas and then, in a dying state, recover itself, we will have near perfection.—Motor Age.

STUDY REASON FOR MUFFLER EXPLOSIONS

Explosions in the muffler are caused by the presence of a fuel charge not ignited during the previous stroke of the engine. If these explosions are frequent, there is a basic cause, which will be either too rich a mixture or some trouble in the electrical system. Muffler explosions, therefore, must be taken as a symptom of some deeper trouble which should be immediately eliminated.

DIRT CAUSES MISSING. In tractor operation a frequent cause of engine missing is the formation of fine particles of metal that have flaked off the motor or the segments of the high-tension distributor, forming a fine dust, which shorts-circuits the distributor. The remedy is to clean the parts with a slightly oiled rag. The trouble is not frequent in the later types of magnetos.

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HAVE 18 MONTHS TO BE REINSTATED

Washington, Aug. 8.—Discharged service men who let their government insurance lapse are given the privilege of reinstating their policies within 18 months without payment of all back premiums, under an order issued by Secretary of the Treasury Glass. The new regulation is regarded as the most liberal ever offered by any insurance organization and is designed to make it possible for every discharged soldier, sailor and marine to continue government insurance after returning to civil life.

The only requirement is that the man requesting reinstatement must be in as good health as at the time of discharge and must pay the premium for the one month of grace in which his insurance was discontinued after he stopped payment and the premium for the month in which he requests reinstatement.

The reason for this requirement is that the insured was protected by having his policy continued in force that month and if he had died his dependents would have received the face of the policy.

War risk insurance officials say that many service men have been deterred from reinstating policies because they did not wish to pay or could not pay the accumulated premiums. The new decision permits a man to start all over and secure the insurance, both as a protection to his dependents and as an investment.

EVERGREEN HIGHWAY TO LINK NORTHWEST

Nampa, Ida., was the real birthplace of the Evergreen highway, now fostered by the Evergreen Highway association, of which Francis H. Sweetland of Tacoma, Wash., is president. The idea is to connect the northwest with Yellowstone park near Vancouver, Wash., through Seattle, Tacoma, Portland, then to the Columbia to Walla Walla, Lewiston, and down the North-and-South highway in Idaho via Grangeville, Whitebird, New Meadows, Council, Welter, Payette, Caldwell and Nampa; east via Boise, Twin Falls, Pocatello; northeast via Idaho Falls to Yellowstone. It is now proposed to extend the route across the continent to Maine, going south from Pocatello to Ogden, Salt Lake City, Arizona, and eastward through the southern states.

Two years ago the greatest good roads convention in southern Idaho was held at Nampa. The idea was broached. Then came the war. Recently the organization was formed in the northwest, and recently President Sweetland, C. A. Collins, W. W. Sherman, state treasurer of Washington; Mr. and Mrs. Frank Schaefer and John Frank, all of Tacoma, motored over the proposed route, boosted for it at the international Rotarian convention in Salt Lake City, and were entertained at Nampa on their way back.

UNCLE SAM PLACING EXPERT CHAUFFEURS

The chauffeur who used to consider Broadway and Forty-second street a hard place to cross went to war to discover that the roughest road to Dublin lay in France after all; for automobile driving became a supreme art over there, where there were no lights to illuminate the roads—and often no roads to illuminate.

With shells bursting on all sides and bombs dropping from the Jerrys above, the truck, ambulance and lorry drivers soon learned a thousand new tricks in the trade—how to keep a straight course without benefit of compass or light, how to climb out of mud, hub-deep, how to run on three wheels if something happened to the fourth, in short, how to do the impossible, all to the glory of the allies and Nov. 11.

These men are now coming back to the United States, master mechanics and drivers, trained in the hardest school to every emergency that an automobile could confront. Some of them are still jobless, and Col. Arthur Woods, assistant to the secretary of war, in charge of the government's reemployment campaign for ex-service men, offers them as the best possible material in the world for expert automobile driving.

Private employers who are operating large fleets of trucks for delivery and transportation purposes are especially recommended to these expert drivers. Government agencies will be the means for bringing the men and the jobs together.

HORSESHOE NAILS MAKE CONNECTORS

Horseshoe nails may be made into satisfactory battery connectors by soldering about a foot of insulated wire, one nail on each end. The nails are then driven into the battery post under the connector. If the nails get dull or bent they may easily be sharpened or straightened again.

PROPER IDLING.

Owners of cars containing small-bore, six-cylinder engines sometimes complain of the difficulty of obtaining proper idling. The owner usually assumes that the carburetor is at fault. As a matter of fact the trouble is usually caused by the spark plug gaps being set too close. This causes the motor to roll when idling with all the symptoms of loading. By increasing the spark gaps and cleaning the plugs, the trouble will be cured.

SPEEDOMETER DRIVE.

Don't forget the speedometer drive. This hard-working part needs a little lubrication, a few drops of oil once a week and the owner seldom remembers it. Given this little attention, the drive will operate quietly and for a long period without other care.

WARPED VALVE SYSTEMS.

If there is a lack of compression, and on examination the valve heads seem clean and perfect, give the valve stems a careful looking over to see if they have not become warped by the intense heat of that part of the engine.

TURNS ARE DANGEROUS.

Never turn around or turn off on to another road without making absolutely sure there are no other vehicles behind you.

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46,000 men are locked out because they refused to give up the eight-hour day.

HERE ARE BEST AUTO CLEANERS

Washing soda, kerosene and plain soap and water should be the cleaning agents used by the car owners for cleaning parts, tools, etc., about the garage. Gasoline is not as good as these others, and it costs considerably more. For taking grease spots out of clothing, some of the inflammable fluids now on the market are better than our present grades of gasoline.

WHEEL BEARINGS.

Every time a wheel is removed the bearing cap is removed with it, and consequently the bearing must be adjusted properly when the wheel is replaced. The best method of doing this is to turn the bearing up tight and then revolve the wheel a few times by hand, which overcomes any tendency to backlash.

KEEP RADIATOR HOSE FREE FROM KINKS

A radiator is mounted as closely to the fan as is possible without creating the excessive noise that would develop when a fan is too close. Too great a distance from the radiator causes the fan to lose a great deal of its efficiency. Sufficient hose should always be allowed in connecting the top of the radiator and water jacket cover to avoid any strain on these connections. The engine weaves in its front support as the car passes over rough or uneven roads, and this would destroy the hose. Avoid any sharp bends or kinks which would retard free passage of water.

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U. S. CHAMBER OF COMMERCE SELECTS CITY

(By United Press.)
Portland, Ore., Aug. 8.—Members of the board of directors of the United States chamber of commerce are spending the day in Portland. The party, which is made up of 25 members, left Chicago July 27, for a tour of western cities. They have visited Omaha, Denver, Salt Lake City, Los Angeles and San Francisco. The directors will hold a meeting in Seattle tomorrow, at which time it is expected, the 1920 convention city will be selected. Glacier national park and Minneapolis will be visited by the party on its return trip to Chicago.

GRIND PUMP SPINDLE TO PERFECT LEAKING

In some instances the stem of the water pump has become so worn, usually in annual groove, that the pump cannot be packed to make it tight. When this happens the only thing to do is to remove the spindle, true it up on the lathe and have a new bushing fitted to it. After this if hump soaked in tallow, wicking or some other good packing is used the joint can be made tight.

PUMP LEAKING.

When the water pump begins to leak, do not assume that necessarily it is because the nut is too loose. Frequently the nut is not to blame at all, but poor packing is the real cause of the trouble. Packing for this part consists of candle wick soaked in tallow, heavy twine similarly treated, or special packing material. After the nut has been turned to press the packing down, do not turn it further, as excessive squeezing is apt to damage some part of the body of the pump.