

## COAST TO COAST AUTO ROAD PLAN

Lee Highway Will Be All-Year  
Paved Route, Washington,  
D. C., to San Diego.

### ROUTE THROUGH CHATTANOOGA

Road is of Primary Importance to  
Each State and Its Completion  
Will Be Big Factor in  
Further Development.

Despite the fact that this is the motor age, that the automobile has been universally adopted as the high-way vehicle, and that federal, state and county agencies have for several years accelerated road building, actual touring experience shows that there has not been developed a single transcontinental route, making an automobile trip from coast to coast a possibility at all times. In order to make such a trip possible throughout the year a program is now taking shape under the auspices of the Lee Highway association assisted by the American Automobile association.

**Most Feasible Route.**  
As a result of this co-operation, the federal government, through the United States bureau of public roads, and the states of Virginia, Tennessee, Arkansas, Oklahoma, Texas, New Mexico, Arizona and California, through their state road departments, are now engaged in the selection of the most direct feasible route from Washington, D. C., to San Diego. Subsequently effort is to be concentrated for the speedy completion of all unfinished sections, and for the systematic maintenance and the widening and strengthening of the present as required by the volume and character of the traffic the pavement will be required to carry.

Already the route has been selected from Washington in a southwest diagonal down the valleys of Virginia and Tennessee through Roanoke, Bristol and Knoxville to Chattanooga. The next step is to fix the route from Chattanooga to San Diego.

**Statement by Johnson.**  
In a statement relating to the Lee Highway, Director General Johnson says: "From practically every county seat in the series of counties between the national capital and San Diego the city pavement extends a considerable distance in either direction, and in many sections the pavement is continuous for a hundred miles or more. This series of pavement is now to be connected. The road is of primary importance to each state, and its completion will be a main factor in the further development of the state. It is a road of great local importance to a series of towns and cities stretching across the continent, and the connecting of these various sections of pavement will be a prime factor in the further development of the nation, since it will facilitate interstate travel and promote the free commingling of the people of the East and the West. It will probably be shorter than any other Southern transcontinental highway and can therefore be completed more quickly. Within the next three years, and possibly sooner, there is every reason to anticipate a modern motorway between the capital city of the nation and southern California."

## COMFORTABLE PLACE FOR CHILD IN AUTO

But Little Material Needed for  
Making Hammock.

Hammock Takes Up Room Usually  
Occupied by Third Person Riding  
in Rear Seat and Is Easily At-  
tached or Detached.

Six green-door springs, a burlap hoop, and a yard of heavy cloth were the materials necessary to make a baby's hammock for the auto today, which gives perfect service and comfort. The hammock takes the place of the third person in the rear seat, as shown. It can be quickly attached or detached, and avoids baby's usual jolting. The hoop was from a barrel, 18 inches in diameter, and was cut in half, each half holding one end of the hammock. These half hoops were held 30 inches apart by means of heavy



The Baby Is Thoroughly Comfortable on Daily Auto Airings When Resting in the Hammock.

cloth sewed to them. Attached to each half hoop are three green-door springs, cut the right length to hold the hammock in a nearly horizontal position, when the baby is not in it. The springs are wired to a ring at each end, and the rings slip over hooks at the supports. When baby and the pillows are placed in the hammock, it sags down just enough to be comfortable. The blanket and pillows can be placed to cover the springs also, thus accommodating a larger child.—Popular Mechanics Magazine.

### CLEAR VISION IS GIVEN

To obtain a clear view ahead through the glass of the windshield in rainy and stormy weather is vitally important to the safety of the motor car and its occupants. Many schemes are used to keep the glass clear in wet weather, but perhaps the most fashionable alcohol and glycerine mixture, which is carried in a small bottle and rubbed on the glass as needed, is best. If the bottle containing the solution is wrapped in a cloth and stored away in the glove pocket, it will always be ready for use and a cloth to apply it with will be at hand.

## AUTOMOBILE PAINTS

Oil the spark and throttle lever connections at intervals.

Common auto polish will keep the rims in good condition.

The right temperature for the motor to run is about 140 degrees Fahrenheit.

## MUFFLER IS NOT WATCHED CLOSE

Cleaning Up Process Is Over-  
looked or Delayed Until Open-  
ings Become Clogged.

### INCREASES USE OF GASOLINE

Very Important Part of Automobile  
Is Located Under Car and Out of  
Sight, and Is Rarely Given  
Attention Needed.

One of the parts of an automobile most neglected by many owners and drivers is the muffler. As a boy with a dirty face puts off the cleaning up process just as long as possible, so the motorist with a muffler that needs attention procrastinates and thinks perhaps he will fix it up tomorrow. And tomorrow never comes. But today is always here with its greater use of gasoline and various other complications that a dirty muffler causes. The muffler is located under the car, and being out of sight is usually out of mind. It is therefore often neglected or misused. And yet it ought not to be. The muffler is placed at the end of the exhaust pipe of the engine so that the driver of an automobile while enjoying pleasure himself does not wholly deprive others of it.

Let us consider the use of the muffler. The exhaust valve opens while the burned gas is still under a pressure of from 25 to 30 pounds per square inch. If this were exhausted directly into the air the resulting noise would stifle conversation in the car, annoy everybody along the street and quickly get the driver into trouble with the police. The muffler prevents all this. It provides a chamber in which these exhaust gases may expand and cool somewhat and at the same time breaks up the pressure by allowing it to leak out slowly through a number of very small holes, instead of letting it loose in one "big noise."

The "Cut-Out" Valve.

In the early history of the automobile mufflers were not used and everybody for blocks around knew when an auto was coming. As the automobiles increased in number this became a nuisance and was stopped by law. Then they sought, without much success, a means of stifling the sound. In the early muffler there was trouble because the gas would back up in the cylinder and decrease the power of the motor. It was thought there was no way to decrease the sound without decreasing the power; therefore the manufacturers devised a valve to "cut out" the muffler on the car whenever extra power was desired.

Sometimes the back pressure was so great as to interfere when driving through heavy roads or up hills. The "cut out" let the gas exhaust directly into the air instead of going through the muffler. At the present time nearly every city has a law prohibiting the use of "cut outs."

The average driver does not know that his muffler needs as careful attention as any other part of the mechanism, and so he neglects it. In these days of noiseless cars it requires a great number of very small holes in side muffler. These become clogged with soot or carbon from the exhaust. The deposit collects very rapidly, especially when the grade of oil used is poor or too much oil is used. It also results when the carburetor is adjusted to give too rich a mixture.

Openings Become Clogged.

When these small openings become clogged the exhaust gases cannot escape readily, and naturally the cylinder of the engine is not cleaned at the exhaust stroke. Result: It is impossible to bring in a full cylinder of new gas on the next intake stroke. There is not a full charge to explode, and this means a loss of power to the engine.

Cases are known where the throttle was opened wide without any increase in power. Trying to find out what the matter was, the driver opened the "cut out" and this caused the machine to accelerate very rapidly.

## AUTOMOBILE NEWS

Wash the car frequently with clean, cold water.

Use no soap on the body where it can possibly be avoided.

An experienced chauffeur in Japan earns from \$5 to \$10 a week.

Never throw water in a pool of burning gasoline; it only spreads the fire.

A new owner of an automobile, when searching for trouble, often creates more than he finds.

The metal surfaces of the wheel splines should be greased when making a change of wire wheels.

Poor compression is the cause of an engine using an excessive amount of oil and gasoline.

When painting the radiator use a thin dead-black paint. Pull black radiators the best more effectively than bright metal.

## TEN RULES OFFERED TO SAVE BATTERIES

Greater Care Is Necessary Dur-  
ing Winter Weather.

Few Simple Instructions, if Faithfully  
Followed, Will Add Materially to  
Life of Important Electrical  
Device.

Now that cold weather is here, you should look your battery over every two weeks. These few simple instructions, faithfully followed, will lengthen the life of a battery:

1. Don't lay tools or anything else on top of your battery.
2. Don't spin your engine several minutes at a time.
3. If your engine does not start promptly, see that the ignition switch is on and the carburetor mixture sufficiently rich before using starter again.
4. See that engine is sufficiently primed in cold weather. Throw your switch off, push starter to turn engine once or twice; throw switch on; then start again as your cylinder is primed.
5. If your car stands idle for a month or more, take the battery out and leave it at the service station.
6. Use nothing but distilled water.
7. Let an expert add the acid for the electrolyte.
8. When the solution sprays or spills, wipe clean with a moist sponge. Some batteries make no provision to keep the solution from splashing, so this rule is given.
9. Keep metal parts of connection, which are not lead-coated, covered with a thin coating of vasoline.
10. Dim lights are sometimes warning signals of short circuits or improper charging. Let the service station make an inspection when you are confused.

### REMOVAL OF STEERING POST

Hardwood Blocks Are Best as They  
Furnish Good Base for Jack  
to Exert Pressure.

To remove a steering post without damaging it with a miller's wrench, clamp two pieces of wood, a surface of each of which has been hollowed out to fit around the post. Hardwood blocks would be best. This furnishes a good base for a jack to exert pressure in loosening the piece. Work may be aided by blows on the blocks by a hammer.

# Fordson



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With the Fordson  
Grind Feed  
With the Fordson

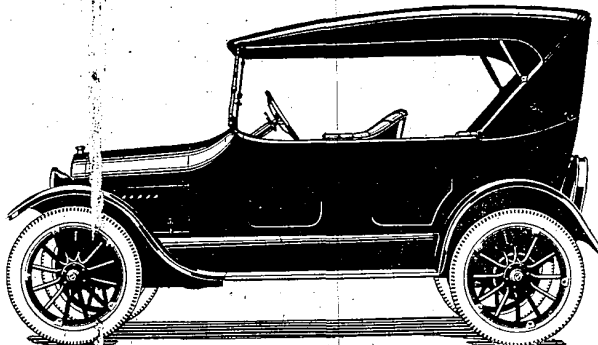
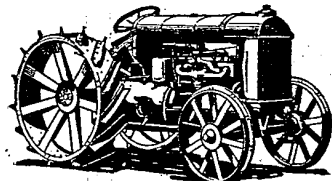
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