

# Automobiles and Good Roads

A Department Designed to Help Farmers With Progressive Road Ideas.

Here is an interesting article discussing the repair and maintenance of earth roads. It is particular of interest just now while D. Ward King, inventor of the King Road Drag, is visiting the Northwest.

**IF YOU** look at the ordinary country road after a shower, you will see small puddles along the wheel ruts and sometimes larger pools. This water stays on the road surface because it cannot drain away into the side ditches. If you look closely you will see said ditches which have grown up with bushes and weeds in many cases, and which are so far from the traveled part of the road that the rain water does not drain into them. That part of the roadway where the wagons travel is called the traveled way. To prevent water from standing on the traveled way, the road should be raised in the center and should slope gently into broad, shallow ditches. It is then said to have a crown. If it is ten feet from the center of the road to the side ditch, the surface at the side ditch should be at least ten inches lower than it is at the center where the horses travel. The road then has a ten-inch crown.

The rain that falls on a road properly crowned will run quickly to the side and not soak into the surface or form pools. The side ditches for surface water should run parallel to the right of way, and should be open at every low point so that the water can run out of them into neighboring brooks or streams. If the ditches merely collect the water from the road surface and it cannot run away, large pools will be formed along the roadside, which will gradually soak into the soil beneath the road and make it so soft that the wheels of wagons will cut through the road surface and soon destroy it.

### Surface Water Trouble.

Sometimes water runs from land along the road into the road, and forms a little stream down the wheel tracks or in the middle, where the horses travel. When driveways into farm yards are built across the said ditches they frequently form channels for water from the farm yard to run into the road. The pipes under driveways become filled with leaves or rubbish and the water can no longer run away. In the driveways that stop the ditch water were rebuilt so that no pipes were necessary and the ditch could be left open, much trouble from surface water would be stopped.

To keep a road smooth and crowned

the best method is to drag it with a road drag. A road drag is made easily with two halves of a log which has been split. The log should be about six or eight inches in thickness and about six or eight feet long. The two halves of the log are set three feet apart with the smooth faces forward and upright. They are then fastened together with braces set in holes bored through the log. A pair of horses may be used to drag the road, and are hitched to a chain fastened to the front half of the log. The road drag should move forward so that it slants across the road in such a way that a small amount of earth will slide past the smooth face of the log toward the center of the road, thus forming the crown. The edges of the logs will scotch out the ruts.

### Best Way to Drag.

The best way to drag is to begin at the side ditch and go up one side of the road, and then down the other. In the next trip the drag should be started a little nearer the center, and the last trip over the road the drag may work close to the center itself. Small ridges of earth will be thrown in the horse tracks and smeared by the round side of the log smoothly over the road. Smearing the earth by the drag is called "puddling," and it tends to make the surface of the road smooth and water-tight after the sun comes out.

The road is always dragged after it has rained, and not when it is dry.

A good, strong pair of horses with a well-built drag can drag three or four miles of road in a day, and it is the best way to maintain good roads. In every country some farmer along each four miles of road should own a drag and drag the road when it rains, and he would always find the road in good condition when he goes to market.

### Auto License Fee Opposed

A storm of protest has been buried at City Commissioner Newman, of New Orleans, who proposes to enforce a recent ordinance making necessary a license fee from each person permitted to operate a motor car on the streets of the city. The ordinance also provides that a picture of the driver must be carried, ready for reference in case it should be demanded by any policeman. There is no objection to the examination to determine the competency of all drivers, but the picture and fee features are being attacked by the motor organizations.

### Be Careful

Don't start out in the morning until you are satisfied that your battery has been fully charged.

## Some Good Hints on Care of Tires

Farmer Writes for Advice and General Answer Is Given With Ideas on How to Save Tire Cost.

Some further valuable hints on the care of tires prepared by an expert and in addition to those published last week are given below. They will be found to cut down the cost of the farmers' tires.

**A**VOID greases, oils and acids, they are solvents of rubber, cause rapid deterioration, make tires susceptible to cuts and similar injuries.

Soapstones or talc is a lubricant of rubber and enough of it should be used when inserting a new tube to allow it to slide easily and avoid friction, and the vulcanization of the inner tube to the casing, which is likely to happen when the casing is overheated from a long run or from standing in the hot sun, but not so much as to harden the case or form lumps.

The first auto accessory to buy is a pressure gauge. It should be used often.

### Tire Stretching Tendency.

Don't forget a new tire has a tendency to stretch under air pressure. It takes from ten to twenty days for a casing to attain its full dimensions, according to service. This means that care should be given to inflation during the first two weeks.

Air costs nothing, use plenty of it. Use nothing but air to inflate tires, gas, especially carbonic, injures tubes.

Be on the safe side and have your tires more than large enough to carry car and all extras. You will receive greater mileage and easier riding qualities in return for the slight cost of over-size tires.

### Insufficient Inflation.

Insufficient inflation and continual overloading destroys casings and tubes.

Remember that over loaded tires are 25 per cent more expensive to run and 5 per cent added to the weight of the car adds 15 per cent to the wear on tires.

Be sure your front wheels run parallel to each other.

It is possible for wheels out of alignment to completely grind the tread off a casing in the short space of 50 miles.

Always have your wheels trued up after an accident, no matter how slight, it will pay you.

### Rusty Rims Hard.

Rusty rims are hard on tires. Keep your rims clean.

Rusty rims should be smoothed with emery paper and painted with shellac, Japan varnish or aluminum paint, also use graphite to make rims operate easily.

Treads are cut and prematurely worn

on one side by driving in street car tracks.

Driving in ruts grinds the rubber off the side walls where it is necessarily thin, allowing water and grit to work into the fabric which will soon cause a casing to be beyond repair.

If in an emergency you must use chains, be sure there is play enough to allow the chains to slide around the tires so as to equally distribute the strain.

### Wet Rubber Susceptible.

Although rubber does not cut easily when dry it is very susceptible to cuts when wet.

Don't ignore cuts. By allowing water and grit to enter will eventually develop into sand blisters or mud boils and separate the tread from the carcass. Small cuts may be repaired with Heal-a-Cut, but permanent repairs should be made on large cuts by vulcanizing as soon as possible.

A blow-out is frequently caused either by a stone or other sharp object rupturing the fabric of a casing.

### Bar Flat Tires.

Don't ride home on a flat tire. It's expensive. If you have no spare case and cannot make roadside repairs it is far better to remove the tire and proceed on the bare rim. Even if the rim is ruined, you have consolation of knowing a new rim is far cheaper than a new tire.

When you travel on a deflated tire both the casing and the tube are literally chewed between the ground and the rim.

Apply sensitive brakes slowly. Quick stops grind away treads.

When starting, don't try to get to full speed in a few yards. Sudden applications of power won't help to keep down tire expense.

### Adjust Brakes Properly.

See that your brakes are properly adjusted practically all of the terrific bear the strain of stopping and starting. When your brake are improperly adjusted practically all of the terrific strain of stopping come on one wheel. This will ruin the best of casings.

As the strain of the rear wheels is greater than that on the front, it is a good plan to shift your casings, for even though the rear tires are almost worn out they should give considerable additional mileage on the front wheels. As the right side of a casing is always more worn than the left, due to rubbing up against curbs, etc., it is also wise to change the tires on the right wheels to the left and vice-versa.

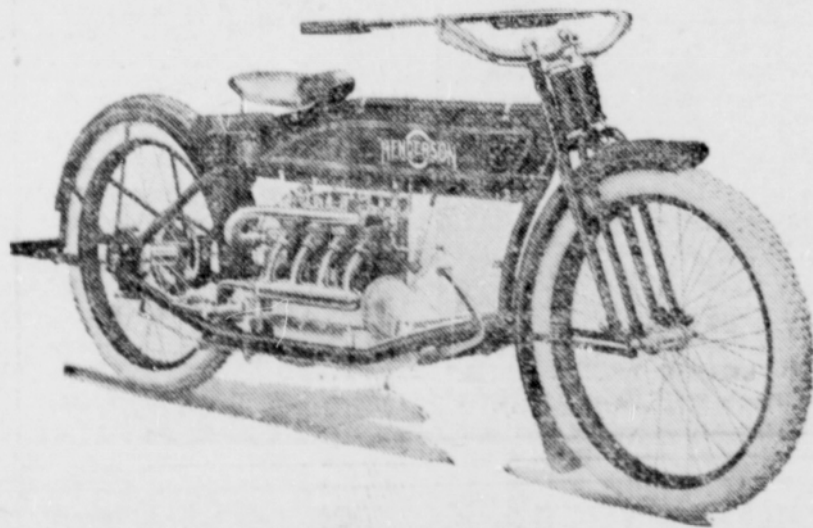
Always carry some patches (either the cemented with the necessary vulcanizing cement or the non-cement type for making roadside repairs, also an inner and outer sleeve for emergency.

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## Automobile Trips!

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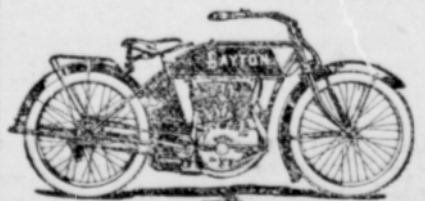
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## Chamber of Commerce Is Against Prohibition

**S**AN FRANCISCO, May 22.—(Special.)—The result of a referendum vote among the members of the San Francisco Chamber of Commerce on the issue of statewide prohibition has just been compiled.

In view of the fact that California voters are to pass on a prohibition amendment to the constitution at the next general election, it was desired to

learn the sentiment in regard to such a measure among the representative business men who comprise the membership of the Chamber. The result of the vote showed an overwhelming sentiment against prohibition. The vote was as follows:

In favor of prohibition constitutional amendment, 41; opposed to prohibition constitutional amendment, 1187; majority against prohibition, 1146.—Oregonian, May 23, 1914.

(Paid Advertisement.)