

## HOW TIRES WEAR OUT IN THE GARAGE

Water, Oil and Grease Work More Actively There Than on Road

### RUST ALSO IS HARMFUL

An inspection of crumpled tires in the collection of a repairman will reveal the fact that a larger percentage of the trouble comes from neglect in the garage at home. If stones, ruts and road roughness were the only things that wore out tires, repair bills would be out in half.

Water, oil, grease and light, rubber's worst enemies, work in a garage more actively than on the road. In washing the car the rims are liable to become rusty and eat away the tire. A coat of graphite or common stone polish will prevent this and keep the tire from creeping.

Oil or grease should never be allowed to stand on a garage floor. Small cuts or bruises on the tire surface, says Miller tire men, should be repaired at once. If a tire has been smeared with grease, it should be washed thoroughly with cold water and a little soap.

The spare tire is often forgotten while the other tires are getting good service, and neglect sometimes causes it to deteriorate rapidly. Always it should be protected from rain, sun and dirt by a cover. Once in a while change it with one of the tires on the car so that the rubber will not harden from disuse.

The weight of the car should never be left on a flat-tired tire. Such treatment is as bad as running on a flat tire and is certain to crack the canvas. Jack up the wheel or take off the tire entirely.

### CARPENTER CAR

Auto Takes Place of Four Men in Building Construction

Making a car take the place of four carpenters is a job that would puzzle many an engineer or efficiency expert. It has been accomplished, however, by G. G. Martin, Los Angeles building contractor, who simply looked up the rear wheel of his car to a lumber sawing attachment.

And unlike the four men replaced, the contrivance is totally indifferent to the little problems sometimes involved in union cards and the eight-hour day. Mr. Martin took out the right rear axle of his car, pulled the left rear axle out about four inches, ran a short shaft entirely through the differential, and attached a spindle to the shaft. He then jacked up one wheel and his sawing machine was ready for operation. The car is run at a speed equivalent to seventeen miles an hour and averages about thirty miles of sawing, so to speak, to the gallon of gasoline.

### EXCEEDS FORECAST

Auto Production Total for 1921 Approximately 1,700,000

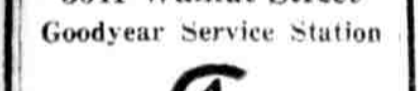
Careful estimates of the total production of motor vehicles by American companies for 1921 indicate that the final figures will be approximately 1,700,000, according to Motor Age. This will include the foreign assembling of cars by Ford and other American companies which have assembly plants in other countries.

Domestic production will aggregate 1,300,000. The domestic production for the first nine months of the year aggregated 1,200,000. The estimated domestic production for the last quarter, with figures for October and November virtually complete, is 400,000. In all instances the figures include both passenger cars and trucks.

The total production for 1920 was 2,200,000, so that the output for this year will be only approximately 200,000 less than in 1920. The most optimistic estimates made at the beginning of 1921 did not exceed 1,500,000.

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## OVER TWO MILLION CARS OWNED BY U. S. FARMERS

Great Demands for Good Roads in Rural Districts

The 1920 census shows that American farmers possess 2,126,512 automobiles, which is more than thirty-two machines to every thousand farms.

"The number of farms which had automobiles on January 1, 1920," says the census report, "was 1,979,361." Automobiles were reported on more than one-half the farms in eight States—Nebraska, Iowa, South Dakota, Kansas, Minnesota, North Dakota, California and Illinois. Motor trucks were reported on 13,531 farms, or about two farms out of every hundred in the United States.

The percentage of cars and trucks is steadily increasing in the rural districts as in the cities, and it is no wonder that the subject of improved roads is being agitated so universally and that everywhere the question of widening highways and making them more permanent is being discussed.

The day when the American farmer

## MIXING ELECTROLYTE

Battery Expert Gives Timely Advice for Filling

"Because of the nature of sulphuric acid when mixed with water," says the Willard Converter, "we find that there might be a separation of acid and water after standing for some time. We therefore issue the following warning:

"In mixing electrolyte, always pour the acid into the water. If a density of acid higher than 1.400 is used, considerable heat will be generated. The electrolyte should be stirred frequently while cooling and should never be used until the temperature of the solution is 60 degrees Fahrenheit or less.

"In all cases, before filling batteries, make them thoroughly stir the electrolyte and make a hydrometer test to be absolutely sure that it is of the correct density.

## CHAR-A-BANC BIG HIT

Popularity of English Bus Grew Rapidly After War

In England the char-a-banc, or motorbus, is taking the place of the lower-priced automobile for many people of average means, reports George M. Sprowls, special field representative of the Goodyear Tire and Rubber Company, who visited the recent London automobile show. The char-a-banc came into general popularity immediately after the war and has developed rapidly.

"Most of the char-a-bancs here no longer," he explains, "as the Englishman

likes plenty of fresh air, but there appears to be a development, however, toward an all-weather top. The usual type is split up with long, crosswise seats, each holding five passengers, with entries by side doors opposite each seat.

"One unusual body exhibited at the show had permanent tops at the front and rear of the car, while the center portion was open. This center portion had windows which could be lowered into the sides and a top that could be rolled back, thus providing either open or closed driving.

"Another type of passenger-carrying vehicle which is growing in popularity is the motor coach, which is used for regular trips between towns or for extended tours, such as into Scotland or

France. These have closed bodies and are well appointed. One of the finest cars at the show was a motorcoach built to carry twenty-six persons, the interior finished in veneered walnut and divided into two compartments. Seats were not arranged in a fixed order, but consisted of leather-upholstered chairs arranged as they might be in a drawing room.

## Avoid Pressure

Never turn the hose directly on the wheels or body when washing the car unless the water pressure is low. Pressure usually built up by the nozzle is sufficient to mar the paint or dislodge it where the water is foolishly dashed

against the surface. The best way to to use a pail of water and a sponge. Then much gentler treatment of the paint will result. After the mud is loosened with the sponge and water it may be flushed off with the water from the hose, which is used without the nozzle.

## Lambert "TRUBLPRUF" Cord Tires

You reduce operating expenses by equipping with "LAMBERTS." They are really tire insurance.

Your reasons for using automobiles in your business are well established. In other words, you probably could not meet competition without them.

Tires have always been a source of annoyance and expense to the average automobile owner. That is—until LAMBERT "TRUBLPRUF" CORD TIRES are used.

Below are shown interesting tire data, proving low initial cost is not the cheapest.

List Price	List Price
Well-Known Fabric Air Tire	Lambert "Trublpruf" Cord Tire
\$81.00—5 tires—30x3 1/2	\$127.00—4 tires—30x3 1/2
11.75—5 tubes—30x3 1/2	Guaranteed 10,000 miles
\$92.75—Total cost per car	\$ .0127—cost per mile
Guaranteed—6000 miles	Without If's
\$ .0154—cost per mile	

The purchase price of LAMBERTS is the last expenditure—because they can't be punctured—no tubes to blow out—impossible to rim cut.

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36x5	22.75	20.20	32x4 1/2	16.75	14.65
35x5	21.00	19.00	34x4	14.50	12.40
36x4 1/2	19.65	17.55	33x4	14.10	12.10
35x4 1/2	18.40	16.35	32x4	13.35	11.35
34x4 1/2	18.00	15.85	31x4	12.50	10.50
			32x3 1/2	10.10	9.25
			30x3 1/2	9.50	8.65
			30x3	8.45	7.60
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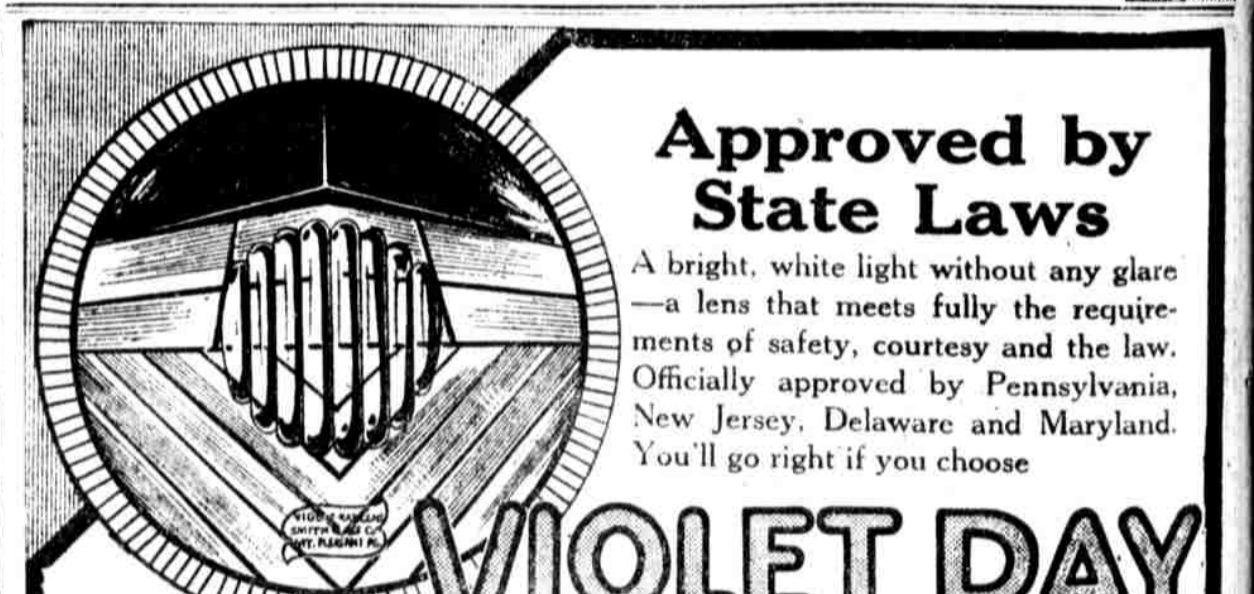
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That there's an emergency service for physicians—priority for the active practitioner.  
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