

### COOLING SYSTEM OF TODAY IS EFFICIENT

There's a Reason for High, Narrow Type of Radiator.

OLD MISTAKE CORRECTED

While Cooling System Requires Little Attention, An Occasional Cleaning Will Help It.

One of the most thoroughly efficient units in the modern motor vehicle is the cooling system. The average car owner pretty nearly forgets the existence of the radiator...

While there are today two distinct methods of keeping the motor within the necessary temperature bounds, we shall consider first the water cooling...

Two Types Explained Water cooling systems are divided into two distinct types, known respectively as thermo-siphon and pump. The thermo-siphon depends for its effectiveness on the working of a simple natural law...

Thermo-siphon water system has the great advantage in simplicity; in fact, nothing could be simpler; it follows directly from the general law.

In the pump cooling system a centrifugal pump driven from the engine, forces the water around the system, thus maintaining the circulation...

Two Kinds of Radiator. There are two different methods of making this core, one known as cellular, the other tubular. In the cellular type the air is drawn through a set of tubes...

How It Works. Thermostatic control consists of a valve fixed in the water line and so designed that when the cooling water falls to a certain predetermined point...

### BREAKING GROUND FOR BIG ADDITION TO PLANT OF C. L. BOSS AUTOMOBILE COMPANY.



SNAPPED AT NINETEENTH AND COUCH STREETS LAST WEEK AS GRADING TEAMS BEGAN WORK. This new addition will add a two-story brick and concrete building, 60 feet wide by 200 feet long...

### TRACTOR EVENT BIG ONE

BUYERS TO FLOCK TO NEW YORK SHOW.

Latest Improvements in Tractor Engineering to Be Demonstrated This Month.

NEW YORK, Oct. 4.—Having made a series of trips to the tractor factory cities during the last several weeks, M. B. Mawby, manager of the International Farm Tractor and Implement Exchange...

This is a distinct mistake, because it is simply going back to solid tires, after having paid the extra cost of pneumatic tires...

CADILLAC ZIPS ALONG FAST Goodyear Equipped Car Makes 85-Mile Speed in Races.

A performance which indicates that the attainment of high speed in automobile races is not limited to contests held on specially constructed speedways is the one that has just been accomplished by O. W. Smith of Thomasville, Ga.

### HOUSES FOR EMPLOYEES

PENNSYLVANIA RUBBER CO. IS BUILDING MODERN HOMES.

Plans Made for 600 Residences to Be Erected and Sold to Workmen at Plant.

Construction of homes for employes at Jeannette, Pa., on a 120-acre patch purchased by the company...

### HINT ON COMMUTATOR

THIS TELLS THE EASIEST WAY TO CLEAN SET.

Motorists Warned Under No Circumstances, However, to Use Emery Cloth.

It is difficult to get at commutators as a rule due to the small opening at the commutator and of the generator or starting motor. This requires that some simple tool be made to get the commutator through one of the brush holder openings.

To use this simple arrangement for cleaning generator commutators first remove the most accessible generator brush and then wrap a strip of No. 00 sandpaper over the end of the paddle and use it through the brush holder when the engine is running...

To Clean Off Carbon. Clean off carbon with a cloth dipped in gasoline, or a brush may be used. Touch up the points of plug with emery cloth, but do not touch emery to glazed porcelain...

### ARMY SPEED LIMITS.

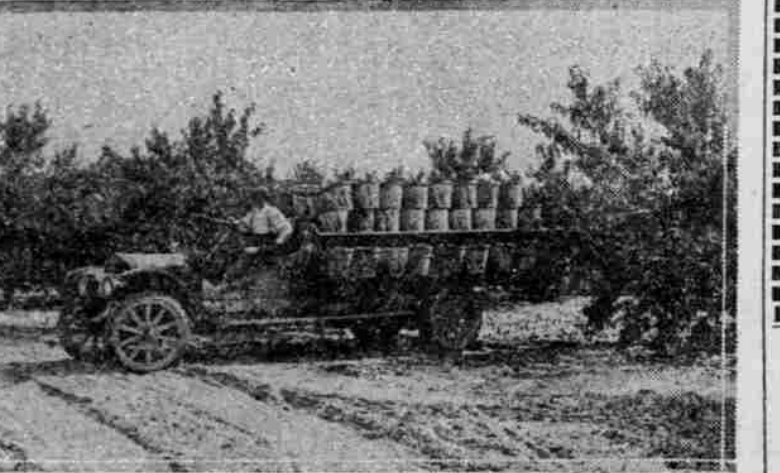
WASHINGTON, Oct. 4.—The service division of the motor transport corps has prescribed maximum limits of speed, both in town and county, for all motor vehicles under its jurisdiction...

Vehicle Type—M.P.H. M.P.H.	In Town	Out of Town
Trucks, class AA.....	12	20
Trucks, class A.....	12	15
Trucks, class B.....	8	14
Ambulances.....	12	18
Light delivery 3-ton capacity or less.....	12	20
Small passenger vehicles.....	15	25
Motorcycles without sidecars.....	18	25
Motorcycles with sidecars.....	18	20
Heavy passenger vehicles.....	18	25

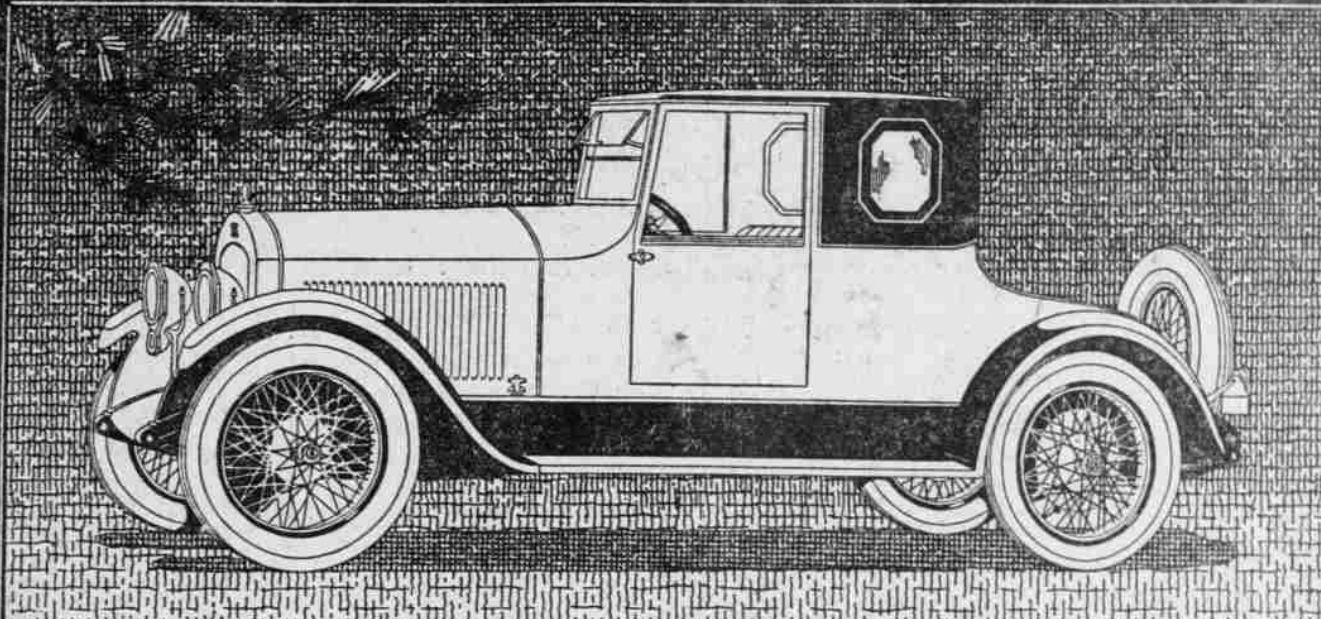
quies where farm and machinery and other commodities are desired. Concerns both large and small, whose products will stand the minutest examination and comparison, may secure space in the various permanent exhibitions at a very moderate price per annum.

Tire Fillers. Some operators of light motor trucks have tried the experiment of using tire fillers in their casings.

### WHITE TRUCK USEFUL IN HAULING PEACH CROP.



Too bad this isn't an Oregon picture. Lack of ability to handle its crop resulted in loss of most of the southern peach crop this year. The photo is from Maryland, where 37 white trucks are employed by one firm alone to handle its products.



## Cole Aero-EIGHT

The Aero-EIGHT has the restraint of true art. Its boldness is tempered by a whimsical touch of the unconventional. It is refreshingly different without being flamboyant...

Prices guaranteed against reduction during 1919

### Northwest Auto Co.

"The Line Complete" ALDER AT EIGHTEENTH Cole Motor Car Company, Indianapolis, U. S. A.

There's a Touch of Tomorrow in All Cole Does Today

### HE RODE IN FIRST HAYNES

FRANK WIGGINS RECALLS EXPERIENCE OF 1893.

Secretary of Los Angeles Chamber of Commerce Tells of Long Ago Ride.

When Frank Wiggins, secretary of the Los Angeles chamber of commerce, took his first automobile ride in 1893 his first thought was of the effect universal adoption of a "horseless carriage" would have upon the harness business...

sloner of highways, as reported to the bureau of public roads of the United States department of agriculture. The statistics are based on a census of the traffic taken periodically during the last four years...

### GOOD ROADS SAVE BIG MONEY

\$25,000 Daily Estimated Economy in Milwaukee.

The improved roads of Milwaukee county, Wisconsin, save \$25,000 a day to the people who use them.



Ninth and Everett

### "Not One Cent for Repairs—Not One Minute Off the Job!"

Yakima Fruit Growers' Association praises Atterbury truck

"Our 2-ton Atterbury has been in constant service over all kinds of roads, carrying an average of 4 tons most of the time. We have not had to spend one cent for repairs—nor has the truck been laid up a single minute."

### Atterbury Truck Sales Co.

"Truck Specialists"

Distributors for Oregon, South Washington, Western Idaho, Northern California

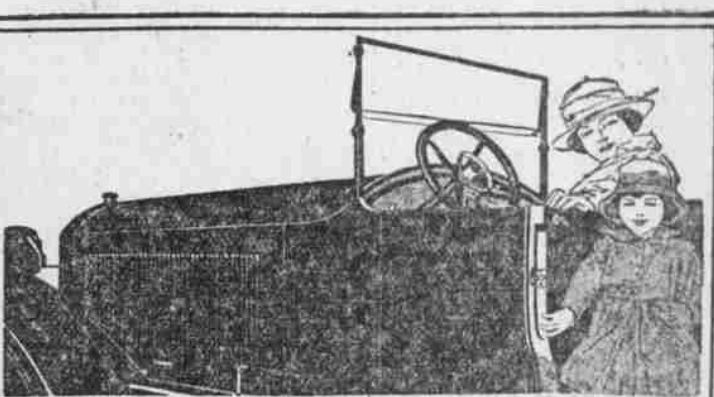
334 Oak Street, Portland Broadway 354

## BUICK EXPERTS

BUICK REPAIRS EXCLUSIVELY 32,000 sq. ft. floor space. Live or dead storage. Cheap rates. PARTS SUPPLIES PORTLAND BUICK REPAIR CO. N. W. Cor. Sixteenth and Jefferson Sts. Portland, Or. Main 3419



## ATTERBURY MOTOR TRUCKS OF MAXIMUM SERVICE



YOU WILL find that the Liberty owner is especially proud of two things:

One is the beauty of the Liberty; the other, the difference in the way in which it rides and drives.

Its beauty, of course, needs no demonstration, for its distinctive, individual design is quite apparent.

And if you will ride with him, or with us, for just ten minutes, you will be convinced that the difference he speaks of is not born of his enthusiasm—but a real and vital difference in the Liberty itself.

W. H. Wallingford Co. 522 Alder St., Portland Branch 707 Washington St., Vancouver, Wash.

## LIBERTY SIX