

TIPS FOR DRIVERS

Learn Use of Throttle, Advises Del Wright.

BIG GAS SAVING POSSIBLE

Pacific KesselKar Branch Manager Gives Useful Pointers on How to Avoid Unnecessary Gear Shifting and Save Car.

"Every owner will find it to his advantage thoroughly to know his car's inside workings, the proper care of its under-the-surface parts, as well as to familiarize himself with what it will do under all driving conditions," said Del Wright, manager of the Portland branch of the Pacific KesselKar Company, the other day.

"To a great extent a car's efficient performance and economy of operation depend on the owner's technical and driving ability. You hear of this car making an endurance record, or that car an economy record and another car 'letting through' where others have failed. Pretty often such performance is due to the fact that the man or woman driver knew the car, what it will do, and what it will not do.

"Right now the press is full of articles and editorials telling how Uncle Sam is badly in need of men, and women, too, who know how to drive and take care properly of automobiles, commercial cars, motor ambulances, etc.

Strict Examination Proposed.
"That is another reason why I think it would be a splendid idea for every automobile owner to have a strict examination as to ability to handle and take care of a car. The United States would then have an inexhaustible army of experienced and trained motor drivers, not only more than sufficient to meet all needs of the Government 'over there,' but in the great industrial army 'over here.'

"Another important matter every owner should pay attention to is that of developing motor flexibility. Much has been said relative to the throttling down of an automobile engine. To the casual observer, the ability of a motor to run smoothly at two miles an hour in high gear, without 'knocking' or 'jerk' may seem of little importance, but in reality it means reducing to a minimum the necessity of shifting gears, thereby reducing wear and strain on it.

"Through the constant shifting of gears the mechanism receives unnecessary hard usage. Thus if the motor can be throttled down to the point where it is almost necessary to shift gears unless a steep hill is encountered, it will stand up much longer and run much quieter. 'Noisy motors and rattling timing gears' usually are usually traced to the habit of improper and unnecessary shifting.

"Another important result of owners knowing their cars is the prevention of skidding or skidding, affecting a great saving in gasoline consumption and tire wear, as well as eliminating a cause of danger.

Brakes May Cause Skidding.
"If the tires lack a sidewall grip, skidding results. It sometimes happens on a dry road, but that is generally due to excessive speed, especially in rounding corners. Usually it is most bothersome on a wet pavement of asphalt or other smooth material.
"Often owners find that their cars skid nearly every time they put on the brakes, especially on a wet pavement. The cause of this is usually that both brakes are not adjusted to the same

STATE OF MICHIGAN TO BUY FIVE HUNDRED TRACTORS FOR FARMERS.

An arrangement similar to that made with the Canadian government by Henry Ford & Son is about to be consummated by the state of Michigan with the same company whereby 500 tractors will be sold to the state and the latter will distribute them to the farmers wanting them. Henry Ford states he is ready and willing to sell a large number of tractors to the state and promises early delivery. Farmers are flooding the Governor's office with telegrams urging him to put the deal through. The state has already received several orders for the tractors. It is Ford's idea to establish no agencies at this time nor sell to individual users direct. If the Government wishes to supply any state with a quantity of machines he will enter into an agreement with it.

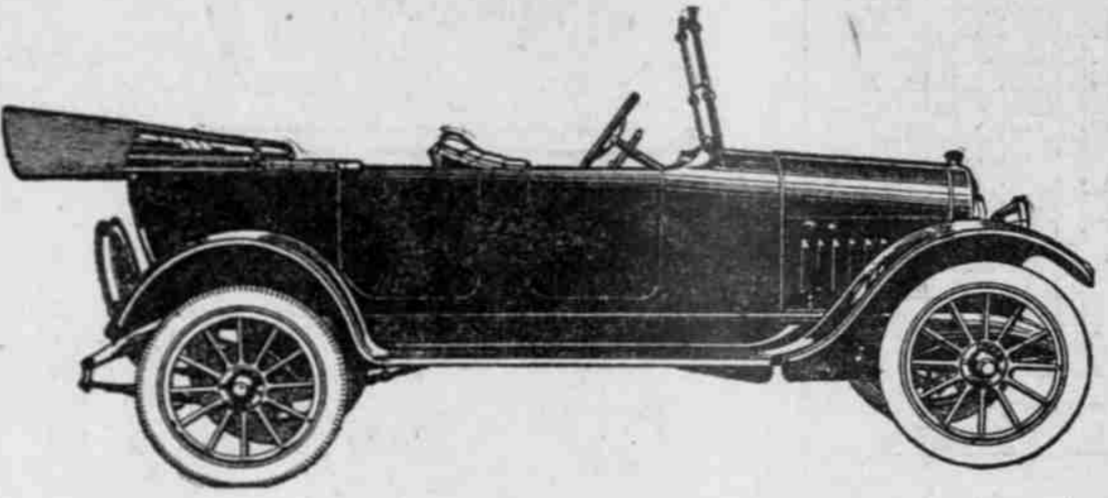
ELECTRIC GARAGE TO ENLARGE

Gibson Electric Garage & Storage Battery Company Expands.
The Gibson Electric Garage & Storage Battery Company, pioneers in Portland in the repair and upkeep of electric starters for automobiles, are enlarging their shop and adding new equipment to make it complete in every detail. This is the only electric garage in Portland, and has convenient quarters where motorists may drive in from the street for battery service.
F. H. Hildebrand, president, and Secretary Foss, of the company, have indicated that they are planning to plant in the East and are equipping their plant so as to handle any make of generator or starter that may come to the shop. The firm is the representative for the Electric Auto Life Corporation, Gray & Davis, and the Northwest Electric Company, and in addition to handling a complete line of storage batteries, is equipped for any electric service required by an automobile.

Pennsylvania Buys Tractors.

The Pennsylvania State Safety and Defense Commission has appropriated \$50,000 to purchase 25 farm tractors to be rented to farmers by the State Department of Agriculture at the lowest possible rate. Lieutenant-Captain McClain has been appointed chairman of a commission to make the purchases and announce that orders will be placed immediately. It is expected that more tractors will be purchased as soon as further appropriations are completed.

Maxwell Save Money Get Busy



C. L. Boss Automobile Co.
615-617 Washington Street
Portland

TIRE PLANT GROWS

Firestone Now Has 37 Acres of Floor Space.

NINE MORE ACRES BUILDING

Huge Strides Made by Tire Concern That Began on Small Scale 17 Years Ago and Now Produces 15,000 Tires Each Day.

Some idea of the vast scale on which the rubber industry is conducted in Akron, the rubber capital of the world, can be gained from a description of the Firestone Tire & Rubber Company. Seventeen years ago the Firestone company occupied a small building with only one-eighth of an acre of floor space. Today the plant has 37 acres of floor space and buildings now under construction will increase this by nine acres.
When the company first began the manufacture of automobile tires its capacity was only a few tires a day. Today it is more than 15,000 a day and will be 25,000 when new buildings are completed. In 1916 its gross sales amounted to \$28,000,000. This year they have been more than \$60,000,000 for the year.
The company now has more than 10,000 employees in its home office and 1500 at its branches and in the field.

Housing Problem Dig One.

Thousands of workmen pouring into the city every year have brought with them all the problems of a metropolitan city. The new residents come faster than homes could be built for them and soon Akron found itself with a real big city housing problem on its hands.

Facing the problem squarely, the rubber companies realized that if they were to keep their workmen happy at their jobs it would be necessary to provide homes and clean, beautiful living conditions. The Firestone Tire & Rubber Company was one of the first to take a forward step in the movement. In one year the company opened up a large allotment of homes for its employees, built a clubhouse, provided a welfare fund of \$1,000,000, built a thoroughly equipped modern hospital and employee building and made more than 90 per cent of its workers partners in the business.
Firestone Park a year ago was a 500-acre farm. Today it is laid out in delightful boulevards, electrically lighted, paved and lined with modern homes. It is not merely an allotment, but a carefully planned and beautiful community. There are schools, churches, stores and a public park, all provided for in the original plans. The lots are large, with plenty of room for a garden and for children to play.

Visita of Firestone.

It was the broad vision of H. S. Firestone, president and founder of the company, which made this community of homes a possibility.
Within the main group of factory buildings is a large clubhouse, built by the company for its employees. Swimming pool, shower baths, bowling alley, barber shop, restaurants, rest-rooms and reading and writing-rooms are in almost constant use, while the large auditorium, ballroom and banquet hall is engaged several nights a week.

Guarding the health of the workers is one of the most important functions of the employment department. New employees are given a thorough examination before they are accepted and are given medical treatment free whenever they call at the hospital. For this work a large staff of physicians and surgeons, dentists and nurses is maintained. The teeth of every employee are examined every three months.

NEW OAKLAND ALL-STEEL CAR

Powerful Endurance Feature of the Sensible Six.
All steel body construction in an automobile pays. This is the conclusion of both dealers and owners of the Oakland Sensible Six, according to E. D. Van Dersal, manager of the Motor Sales

TO PUT TUBE IN CASING

EXPERT ADVICE GIVEN BY B. F. GOODRICH RUBBER COMPANY.

Usage of Leading Racing Drivers Is Explained for Benefit of All Motorists.

Even experienced drivers are making the mistake these days of wrongly inserting the tire tubes in casings, particularly in one regard, the B. F. Goodrich Rubber Company points out. The right method is based on the usage of the leading racing drivers with the logical assumption that they are the best qualified to decide.
Ancient tube insertion, one of the first things to do is to give the bridge nut at the base of the valve-stem, above the oblong metal plate on the tube, a tightening twist with a pair of pliers. The use of pliers is advised in preference to a wrench, as a wrench is too powerful for the purpose and liable to cut the valve through the rubber.
It is surprising how frequently a slow leak is due to the loose fit of the tube around the valve. When the tube is entirely in the casing, jar the tire a few times to seat it. Only after the tire is mounted and fully inflated—in fact, it is advisable to have it slightly over-inflated—is the time to fasten securely the rim nut, which works around the valve stem above the rim. With this nut firmly tightened down against the rim, the surplus pressure may be allowed to escape and the tire brought to normal contour for the load carried. The caliper gauge is the best

Move Cattle by Truck.

James R. Elliott, of Pendleton, Ind., has equipped a Maxwell truck with a cattle body and transports livestock from his Pendleton farm to the Indianapolis stockyards. The distance between the two points is 40 miles. He makes daily trips. During the past seven months he has not expended \$5 in repairs.

Look out for the pedestrian who tries to cross the street after you have received the traffic officer's signal to go ahead.

Another FEDERAL REDMOND - PRINEVILLE MOTOR STAGE

Where the Most Is Demanded of Motor Transportation You Will Usually Find a Federal

Out in the sagebrush, where roads are not the best, trucks come and go, but somewhere, always in the hardest of service, you will find the Federal.

It's a natural conclusion. Every Federal built 25 per cent heavier and stronger than need be for the rated capacity, is bound to make good. It is built with an expectation of abuse, and here in Oregon and the Northwest it gets it.

Just an example is the Redmond-Prineville stage. Trucks pounding over that road with all the freight that goes into and comes out of Prineville have to have the "stuff." These Federals have been on the job constantly for three years. They are ready to go that again.

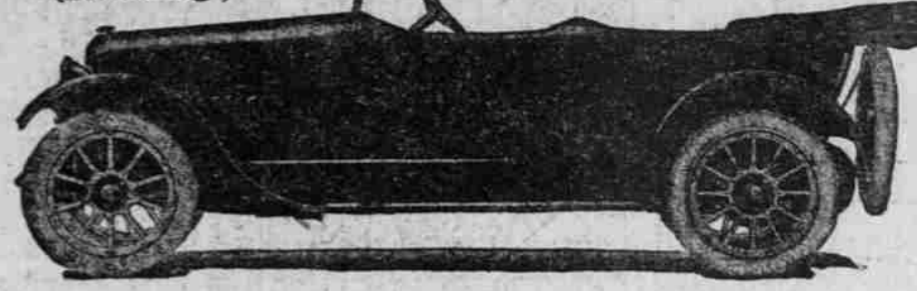
Better investigate. The Federal was built for the Northwest.

The Pacific KesselKar Branch

Broadway and Davis Portland, Ore.
W. L. Hughson, President
Oldest Motor Car Organization on the Coast, with branches at Seattle Oakland San Diego Los Angeles Fresno San Francisco



\$1095 (f.o.b. Chicago)
5-Passenger Touring
4-Passenger Roadster



Elgin Six
"The Car of the Hour"

*Its lines are like the queenly yachts whose grace you pride,
Designed to please the eye and still in strength abide.
Within its spacious body, Comfort's needs it meets,
And welcomes Relaxation in its rich, upholstered seats.
"Built Like a Watch" it is, to its minutest part—
A perfect product of the Master Builders' art.
Compared with other cars of every style and mode,
The Elgin Six stands out distinct, "The Beauty of the Road."*

But neither power, speed, strength nor endurance was sacrificed to beauty and style in the making of the Elgin Six. And while the new Elgin Six is a big, powerful car, it is an economical car to operate.

The Elgin Six has repeatedly demonstrated on long tours and in reliability and economy tests during the past year that it will average from twenty to twenty-five miles to the gallon of gasoline, and better than two hundred miles to the quart of lubricating oil, while its low weight results in keeping tire wear down to a minimum.

The new Elgin Six is the latest and finest product of Veteran Engineers and Master Car Builders, whose leadership and reputation have been established by their ability to build a motor car embodying, in the highest degree, the four dominant features of the Elgin Six—

Distinction—Endurance—Economy—Comfort

The special construction of the Elgin velvet-acting clutch enables the driver to start the Elgin Six on high gear and does away with the necessity of gear shifting under ordinary conditions—a wonderful improvement that makes it safe and easy for a woman to drive a motor car.

Elgin Engineers have perfected an improved rear spring suspension, found only in the Elgin Six, which reduces shock and vibration on rough roads to a point not surpassed in any car at any price, and sets a new standard of motoring ease and comfort at high speeds.

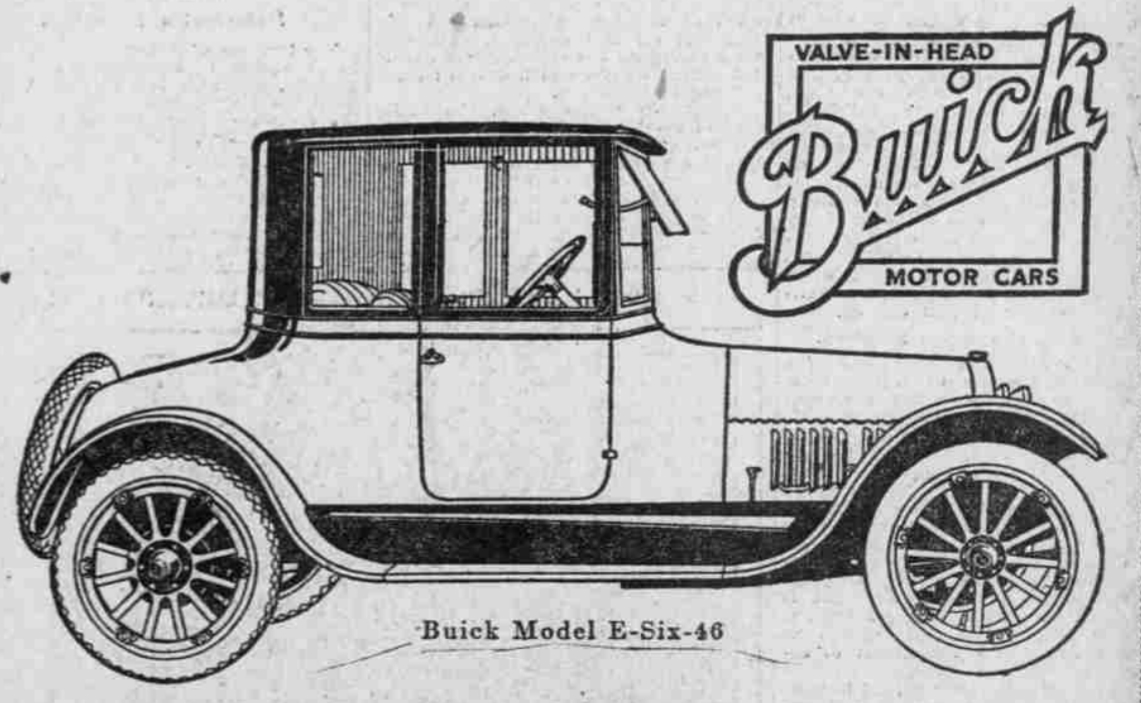
The fashionable center cowl, combined with the true yacht line design and "V" type radiator, give the Elgin Six a distinction that sets it apart from common cars. This double cowl and "V" type radiator are found in no other car selling for less than \$1500.

Surely, it is worth your while to investigate the Elgin.

Elgin Motor Car Corporation, Chicago, U. S. A.

J. S. MOLTZNER
DISTRIBUTOR
D. E. LARKIN, Sales Manager
WASHINGTON AND BURNSIDE AT SIXTEENTH
Phone Broadway 3393

means for measuring the load. The excess of air pressure acts as a press that firmly seats the metal bridge on the tube into the valve cavity on the inside of the tire. The force exerted on the approximately four inches of metal surface at 80 pounds pressure is thus 320 pounds, and this prevents pinching.



Four-Passenger Closed Model
Not only the ideal car for Winter use, but we predict it will be eventually the prevailing type for all times.

Other Closed Models
Five and Seven Passengers—Four and Six Cylinders.

HOWARD AUTO CO.

Fourteenth and Davis
Broadway 1130, A 6241
—Immediate Deliveries All Models, Closed and Open—