

## Hills Not Needed to Show Power of Chandler Pickup

"Steep hills are not usually regarded as an asset by the average automobile dealer. If he is situated in a mountainous or hilly country he most likely regards the difficult grades and climbs as a handicap, and dreams of the wonderful sales possibilities in a region where the roads are as flat as a billiard table," comments Tom Hay of Tom Hay and Son of Evanston, Chandler-Cleveland dealers.

"Now note the exception. The dealer who sells the new Chandler Sixes and Eights, which incorporate the notable Pikes Peak high compression power principle with every motor, regards himself as out of luck if there are no hard hills to encounter in his vicinity. The Chandler distributor at

Chicago, for instance, where all roads are level for miles around, wrote to the factory complaining of the lack of hills on which to demonstrate the exceptional power of the new '65,' Big Six, Royal '75' and '85' series.

"Even without hills, however, he reports that it is easy to prove Chandler power. Instead of putting the car up steep grades in high gear, he shows the power by acceleration tests, making rapid getaways in high gear, from a standstill.

### TRAVEL AT LOW COST

Detroit, only one of many similar cities, has developed a transportation system in which 97 busses with approximately 2,055 daily capacity are operating to all parts of the country. Compared with the railroads, the time between points is longer, but the cost is cut in half and in some cases to a third.

## Defective Cars May Soon Be Barred from Traffic

A number of states are empowering their motor vehicle license departments to refuse licenses to cars mechanically defective.

The reason for this is the charge that where a motor vehicle is fit only for the wreckage yard, it is a hazard on the highway and should not be permitted to operate while it is a menace to life and limb.

### BUILDS PLANE ENGINE

The first successful Diesel type aircraft engine ever built has been produced by Packard. The new motor, which promises to revolutionize aircraft engine design and construction, was given its final test flight in a Stinson-Detroit plane last week and proved highly successful.

## Frigid Testing Room Is Being Built for Graham-Paige Cars

At 20 degrees below zero, testing an automobile on a day's non-stop run at 35 miles per hour would strike the average motorist as being neither pleasant nor practicable. But just such tests are essential to guide engineers in designing automobiles, and the Graham-Paige Motors corporation will soon be equipped to conduct trial runs under these conditions every day of the year, according to Carl Hanson of Hanson Motors company, Winnetka dealers.

In a new engineering laboratory, now under construction, Graham-Paige will have a cold room 38x16 feet. Refrigerating machinery capable of producing 60 tons of ice every 24 hours will maintain sub-zero temperatures while engines, chassis, or complete cars are run under their own power on dynamometers. To maintain outdoor conditions, a powerful blower will send the frigid air against the radiator of the car under test in volume equal to that normally passing through the radiator of a car traveling 35 miles per hour.

The engineering laboratory and a car test building, which will be surrounded by a concrete test track, have been added by Graham-Paige to its factory expansion program. The engineering laboratory will be 300x60 feet, two stories high; the car test building will be 480x100 feet. The combined floor area of the two structures will be 84,000 square feet. The cost of the buildings, without equipment, will be \$200,000.

The laboratory building will be of concrete throughout. Plans call for complete equipment of the latest type, including several features that are to be found in few industrial laboratory buildings in America.

Besides the cold room, there will be a silent room of unusual size. It will be equipped with a chassis dynamometer so that an entire car can be tested for noise under actual operating conditions. In another silent room means will be provided for driving individual units by power shafts through the walls, permitting the test of axles, transmissions, valve assemblies and other units.

## New "Velvet Action" Brakes on Latest Pierce-Arrow Cars

Incorporation of a new "velvet action" braking system in both its Series 81 and Series 36 dual-valve lines is announced by the Pierce-Arrow Motor Car company as the latest engineering development adding to the mechanical perfection of its luxurious automobiles, according to James G. Barber, of Evanston, north shore distributor. The new brake system is, in addition to its soft action, the most positive and trouble-free found on any American car.

"Pierce-Arrow's new brake system is a development of the famous Isotta-Fraschini type of design," said Mr. Barber, a system used for years on this famous European car and developed especially for use in the Alps and other mountainous sections of the continent. Because of this type of design it is possible to take a Pierce-Arrow down the steepest hill with the brakes applied without burning the liners. Air cooled drums are responsible for this feature.

"The simplicity of this brake (the actual number of working parts being the smallest of any car in America) solves the problem of frequent adjustment. There are no toggle or universal joints.

"These features distinguish the new Pierce-Arrow braking system as one of the most important mechanical developments of the year."

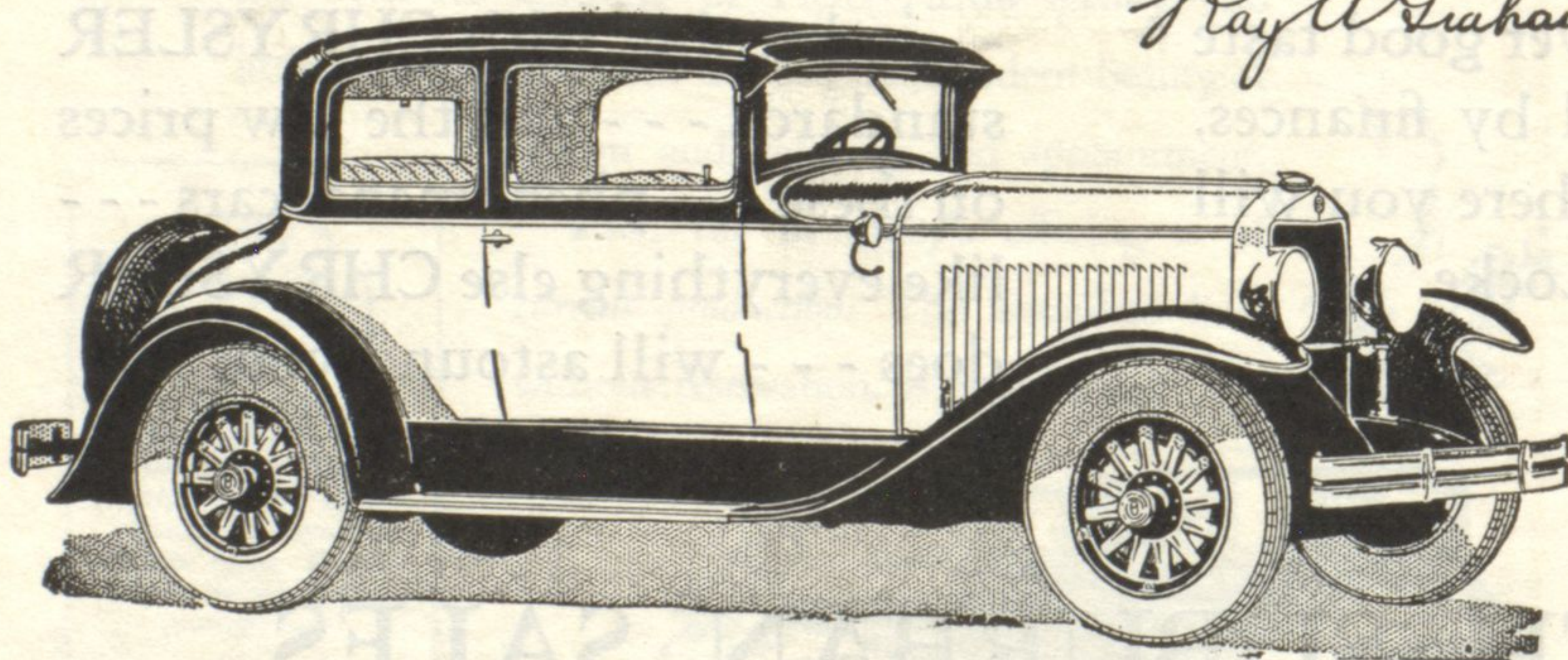
# Four Speed Advantages



Quiet and quickly responsive—"third" in the Graham-Paige four-speed transmission (standard gear shift) rapidly accelerates in traffic, and up steep hills. Fourth speed reveals a new smoothness and swiftness when the road is open. We invite you to enjoy the advantages of driving with four speeds forward.

Five chassis—sixes and eights—prices ranging from \$860 to \$2485. Car illustrated is Model 619, four-passenger Coupe, with 4-speed transmission (standard gear shift), \$1575. All prices f. o. b. Detroit.

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# GRAHAM-PAIGE