

HUDSON CARAVAN USE GENERAL GAS

One Thousand Dollars Worth of Fuel Keeps Three Cars on Long Tour

One thousand dollars worth of gasoline, that amount would keep the average family flivver running for a long, long, time. Yet, such is the itinerary laid out for the Portland Motor Car company's Hudson-Essex closed car caravan, that a thousand dollars worth of General Petroleum Corporation gasoline script was given the drivers as a starter.

Comfort and economy in motoring is the doctrine the Portland Motor Car company's caravan is preaching on its long run in and about Portland and then throughout the entire state. The caravan got under way on May first and already is a familiar sight about Portland with its three brightly-painted coaches.

"An economy of operation is one of the points we are seeking to demonstrate," said Sid Peters of the Portland Motor Car company. "It is natural that we were very careful in the selection of gasoline to be used on the long tour. Economical transportation has long been a well-established merit of the Hudson-Essex line and for this tour particularly, we wanted to be assured that both as to fuel and lubricants we would be as well fixed as possible.

It is significant that, as a result of its experience through all sorts of tests and observations, the company selected General gasoline and lubricants for use throughout

Hudson Caravan "Filling Up" at General Gas Station



Over \$1000 Worth of Fuel is used by Three-Car Equipment

the entire tour. Not only was the excellence of these two products taken into consideration; the thorough distribution of green-and-white independent stations over the state was of prime importance. Consequently the caravan drivers are equipped with General scrip books and will be served by the authorized independent dealers handling General products from line to line north and south and as far east as Baker, states O. R. Spencer, distributor of General Petroleum Products in Marion and Polk counties.

It will also be noted that the company has chosen Goodyear balloon tire equipment for the display. It is said that in the recent automobile show, Goodyear had a large majority of all the balloon equipment. The service from these tires is said to be exceeding all expectations.

There are 60,000 motor buses operating in the U.S.A., 3,250 being owned by electric railways.

CAREFUL CHECK IS MADE OF MATERIAL

Chevrolet Plant Uses Rigid Standard in Assembly Line, Is Claim

One employe in every six in the motor assembly plant of the Chevrolet Motor company plant at Flint, Mich., does nothing but check the rigid standards required in the motor parts and the accuracy with which they are fitted together.

There are 2,776 employes in the motor plant. Of these, 463 are inspectors who demand a precision too minute for detection by the unaided eye.

Before the engine block starts down one of the assembly lines it is given a triple inspection for possible irregularities or defects, each inspector checking his predecessor. Next it is washed, dried under compressed air and again inspected for cleanliness. If a dirt spot is discovered, the casting is sent back to the washer.

Almost endless tests mark its progress down the assembly line, precisions being gauged down to one-thousandth of an inch. The moment an inspector detects any variation from the standard, the motor is taken from the line. If the defect is only minor, the motor is sent back on the line for adjustments or replacements subject to subsequent re-inspection. If the variation from the standard is fundamental, the motor is disassembled.

As the motor is built up, all parts and fittings are subjected to constant examination and re-examination. Precision is law. For instance, the fit of piston pins into the piston must be so exact that the pin may be pushed into the piston hole by the mechanic's thumb but will not fall out of its own weight. The clearance at this point is about one-twentieth of the diameter of the finest human hair. This is called a "push in" fit.

After being built up, the motor is "run in" by electric motors at 1200 revolutions per minute for

about two hours to work in the bearings and piston rings.

The motor is then "taken down" for inspection of the bearings, cylinder walls and all moving parts. When it passes the inspectors, it is re-assembled and operated under its own power while experts listen for any possible noise, their methods being comparable to a doctor's use of a stethoscope.

If the motor sounds "sweet," it is returned to the assembly line for final equipment and painting. The last man on the line is an inspector. From his hands the motor goes to the various car assembly plants.

POWER IS GAINED IN SAME ENGINE

15 Percent Increase in Same Block, With Same Bore and Stroke

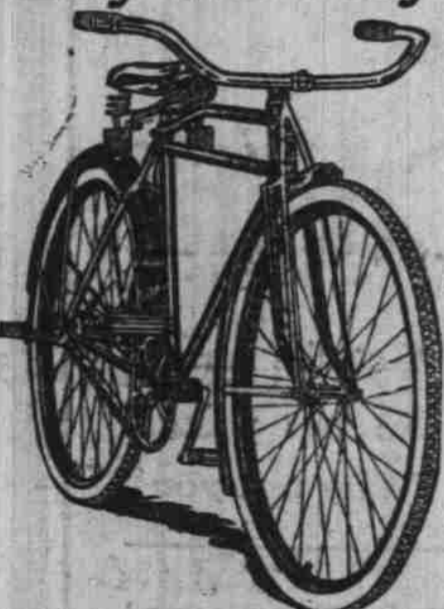
A statement of the Maxwell-Chrysler engineers that a 15 percent increase in horse power has been accomplished in the new Maxwell without increasing the bore or the stroke, apparently has considerable to do with the new engineering achievements of combining into the new Maxwell models, for the first time in low priced motor cars, the three assets of economy, speed and flexibility. These sweeping improvements are said to have been made possible through re-designing the cylinder block, changing the valves and valve seats, improving the cooling system and lengthening the pistons.

Automotive engineers are authority for the statement that with a proper basic design a combination of two of these assets of economy, speed and flexibility is relatively easy to obtain.

The trick seems to be group the three with the other two. "These same engineers," says Oscar B. Gingrich, local Maxwell dealer, "declare that obtaining the third is a most difficult engineering problem, even with the proper design. An engineer can get speed and acceleration; but that almost invariably means loss of economy. He can have economy and also speed, but that means slow acceleration because of the very high gear ratio. He may secure the economy and acceleration through the use of a small engine and low gear ratio, but he will lose in speed. Maxwell for the first time in all motor car history is giving speed, acceleration and economy in a four cylinder car to a degree far higher than practically any one, except actual owners of the new cars, really suspects.

"Those acquainted with the car's performance capabilities assert that it will outrun and outperform any other four cylinder car yet built."

Buy the Boy a Columbia BICYCLE

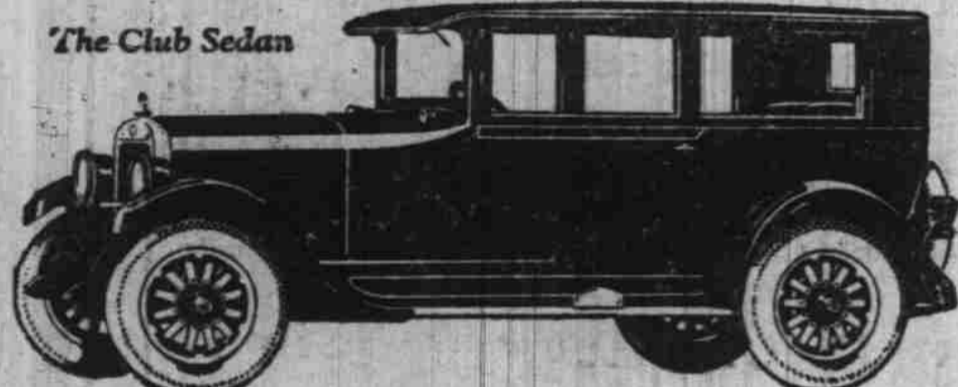


\$53.50
\$5 Cash
\$1.50 Week

He Has Always Wanted a Bicycle—Get a "Columbia" While These Easy Terms Prevail.

The Columbia Bicycle has stood for years as one of the best bicycles made—backed by the manufacturer's, as well as guarantee. The model offered this week is a double drop frame style, with truss fork. It is equipped with Morrow brake, clincher tires, Diamond roller chain, pressed steel mud-guards, one-piece crank hanger, steel rims and is offered in a good selection of colors. With every bicycle sold this week we will give free of charge a jewel rear reflector.

Lloyd E. Ramsden
387 Court Street



**58
Miles
per Hour**

Finer Results, Easier Riding, Greater Strength, Lower Costs

**5 to 25
Miles
in 8 Seconds**

**25
Miles
to the Gallon**

One of the first considerations of the designers and builders of the new good Maxwell was to make sure of ample strength.

Transmission and rear axle are strong enough for the most powerful lugging through deep sand and mud. In every particular the car is built to do the job—whatever the job may be—and do it unflinchingly.

The new good Maxwell is in truth a car of exceptional quality. The motor is designed not only to deliver 58 miles an hour and accelerate from 5 to 25 in 8 seconds. It also combines such structural features as force feed lubrication to main bearings.

Facts like these account for the car's dependable service and low maintenance costs. We would like an opportunity to tell you the complete Maxwell story. But most of all we are eager to demonstrate the car's finer results and riding qualities.

The New Good MAXWELL

O. B. GINGRICH MOTOR CO.
Corner Commercial and Bellevue Phone 635



EXCESS POWER IS WASTEFUL, CLAIM

Economy in Gasoline More Desirable Than Occasional Use of Power

Decided emphasis has been given to gasoline economy in motor car operation through the increasing number of states that are adopting a gasoline tax in the opinion of W. R. Tracy, assistant director of sales of the Oakland Motor Car company, who recently returned from a two month's tour of the western states.

On the Pacific coast particularly there always has been a keen interest in economical motor car operation, he states, as attested by the fact that two of the most popular annual automobile contests there feature gasoline economy.

"A motor can be both powerful and economical at the same time," he states. "A motor that is powerful alone, without economy, is wasteful. It is just as sensible to wear rubber boots all the time to be prepared in case of rain as it is to have an over powerful motor with consequent waste for the occasional hill climbing that the average person requires in the daily use of his motor car."

The trend in automobile design for the past three or four years has been towards motors with smaller bore and longer stroke—somewhat similar to the type that has been so successful in the great motor car speed contests."

"Our Oakland high speed L-engine has been developed along this line—small bore, long stroke and high efficiency, yet producing more power for a given weight of the engine than the old large bore engines because it is using its "piston displacement" more times per minute and converting into power more of the latent energy of each exploding charge.

"The great American motor car racing classic at Indianapolis is to be held Memorial Day will again prove, as it has in the past few years, that the small bore, long stroke engine is both powerful and economical."

Credits on automobile time payments have proved sound. Average losses of 50 leading finance companies in one year were but one-fifth of 1%.

BETTER AND BETTER

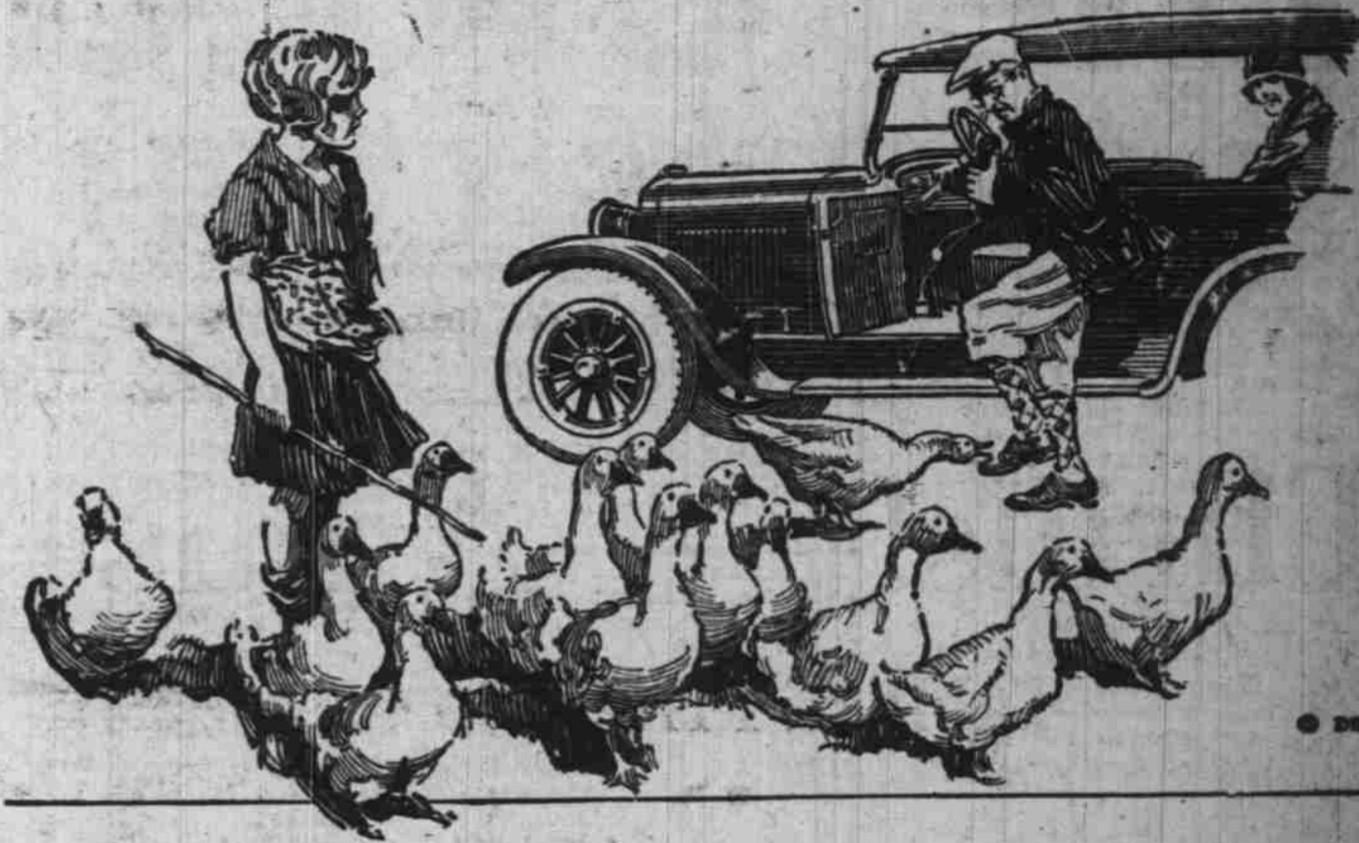
Dependable ten years ago, and five years ago, and more dependable than ever today, Dodge Brothers Motor Car simply represents the latest phase in a process of continual betterment.

The first cars Dodge Brothers built established a world-wide reputation. The cars they are building today incorporate the accumulated refinements of those ten intervening years.

That important improvements in the comfort and appearance of the car are made from time to time, implies no basic departure from Dodge Brothers traditional policy of progressive rather than seasonal development.

BONESTEEL MOTOR CO.

474 South Commercial. Phone 423





\$1895
f. o. b. factory, plus war tax
Famous "6" Coupe

Performance

"Seems to me it was driver as much as car," exclaimed an envious rival in discussing the several record smashing feats of Rickenbacker Six with "Cannon Ball Baker" at the wheel.

"Could any other than this Man of Iron, endure a drive of 1558 miles—Canada to Mexico—over three mountain ranges—Cascade, Siakiyou and Tehachapi—with the steep climbs and hair-raising plunges down the mountains and around hair pin turns?"

"Could any other thing of flesh and blood and muscle, make that continuous drive of 40 hours 57 minutes without relief, rest or sleep?"

"I say a lot of credit goes to the driver for that record."

"Absolutely!"—replied another—"but could any other car stand the merciless driving—accelerator down to the floor boards all the time—save when, to slow down for a turn, the brake pedals are in that position."

That's why "Cannon Ball Baker" was made Chief Test Pilot of Rickenbacker Motor Company.

No other driver could push this new Rickenbacker Six sufficiently to really test its stamina.

Baker drives for the record—and the car must stand all the grief he can give it, if it is to get that record.

Its stamina—its power, its oiling system—its brakes—must be equal to his amazing physical endurance.

That this new Rickenbacker Six, has in every test been equal to Baker's demands for speed, and has smashed every record this great pair have gone after, is proof that it is a wonderfully good automobile.

Drive this Rickenbacker Six yourself—it will be a revelation to you.

F. W. Pettyjohn Co.
Commercial near Center
"After We Sell, We Serve"

Rickenbacker

A CAR WORTHY OF ITS NAME



Champion is outselling throughout the world because it is the better spark plug.

Champion X for Ford's 50c. Blue Box for all other cars. The more than 95,000 dealers sell Champions. You will know the genuine by the double-ribbed core.

Champion Spark Plug Co.
Toledo, Ohio
Windsor, Ont., London, Paris

