

GASOLINE IS SAVED BY MODERATE SPEED

Severe Mileage Test Made by Saxon Cars Proves A. H. Knaus' Contention.

THREE SALESMEN CONTEST

Driver Who Averages 23 Miles an Hour Runs 22.1 Miles on One Gallon—Need of Conserving Gas Shown.

Arthur H. Knaus, of the Twin States Motor Car Company, Chandler and Saxon distributors in this territory, and three of his salesmen put on an unusual gasoline mileage test the other day with three Saxon Sixes. Incidentally, in addition to showing good mileage returns, the test demonstrated most interestingly a point that Mr. Knaus has long been trying to impress on his salesmen and purchasers of cars—that the way a car is driven has a great deal to do with gasoline economy, and that no matter how economical the car may be on gasoline, it will burn up vastly more fuel at high speeds than at a moderate pace.

Frank Catterlin, John N. Sharp and E. H. Finch were the salesmen who took part in the test. It came about in this way. They were discussing the record of 23 miles to the gallon of gasoline hung up by a Saxon Six in the Los Angeles-Yosemite 370-mile economy run last month in which 15 cars took part. Each of the salesmen contended that he could take a Saxon on an economy run and outlast and out-economize either or both the others.

Drivers Too Eager for Speed. The argument attained the proportions of a heated debate, and finally Mr. Knaus was asked to settle the question. He promptly suggested that the salesmen each take a Saxon Six demonstrator and settle the question of economy by seeing how far each could drive on a measured gallon of gasoline.

"But I'll wager," he put in as a parting shot, "that not one of you can make 29 miles to the gallon for the

COLUMBIA RIVER HIGHWAY TO BE OPEN TODAY.

Word was received in Portland last night from Hood River that grading on the new section of the Columbia River Highway between Cascade Locks and Hood River, which has been closed for some months, has been completed by Dan Kern, contractor, and that the highway will be open today through to Hood River. People of that town are making preparations to receive a large number of tourists. The new part of the highway will be very rough and dusty in a good many places, as the grading has not been completed, and surfacing with gravel has only begun. It will probably be fair before traveling is completed. Motorists who come through for the present will find going pretty rough in spots, and it is suggested to prefer to ship by ferry or steamer.

simple reason that you all want to step on it when you travel. Nobody who habitually drives at 30 to 35 miles an hour can make that mileage, or anywhere near it, no matter what the car.

That was adding insult to injury, but the salesmen accepted the challenge. Mr. Knaus, first, wanted to see how far he could run on a gallon of gasoline. He decided to run should be made down the Linnton road toward Scappoose, for the reason that there is very little opportunity for being stuck in a traffic jam, and to demonstrate his own point about the importance of careful driving under conditions of everyday driving.

Three Saxon demonstrators were equipped with one-gallon cans by one of the shop men, and the cans filled with measured gallons of gasoline, the gasoline tanks in the cars were emptied. Ordinarily on a gasoline test the cars are "tuned up" and the carburetors adjusted to as lean a mixture as possible, but there was no time to do this, as Mr. Knaus insisted that the test be held at once.

Test Made on Hot Day.

The start was made from in front of the salesrooms of the Twin States Motor Car Company, Sixteenth and Alder streets, at 3 o'clock last Tuesday afternoon. It was a muggy warm day. The pavement was just sticky enough to be a handicap by increasing the "pull" necessary to move the cars, thus adding to gasoline consumption.

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Catterlin and Finch held their gait a little longer. Then they, too, began to wobble in their resolution. First Finch speeded up a bit. Away he went down the highway at 27 miles an hour.

Speed "Eats Up" Gas. Catterlin held to the moderate 20-mile speed for quite a distance, but every now and then he would let up to 25 miles or faster, in spite of repeated warnings.

So it went for several miles. Then Knaus set out in the Chandler to find Sharp. Just 15 miles from the start he found him. Sharp's 35-mile an hour speed had exhausted the gallon of gasoline in 15 miles to the dot. He was out of it.

Finch apparently was trying to hold down his speed, and he did so about 25 to 27 miles an hour. But at a point 13.3 miles from the start there was a cough and his Saxon gave up the ghost with the gallon of gasoline gone to the last drop.

IT TAKES A SAXON TO BEAT A SAXON IN GAS ECONOMY TEST.



Above—Three Saxon Cars Leaving Twin States Motor Car Company Tuesday to Settle a Bet Made by the Salesmen as to Who Could Get the Best Mileage. Left to Right the Contestants Are John N. Sharp, H. E. Finch and Frank Catterlin, While A. H. Knaus (Left) and R. R. Coester Are Holding the Tape. Below—Frank Catterlin and the Winning Saxon.

serve gasoline. There is plenty of gasolene for all needs including the war requirements of the Government. If motorists will economize. But I don't care what the car, no man can save gasoline when he tears along at a fast clip. Twenty to 25 miles an hour is fast enough for anyone to travel, and it is a patriotic duty every motorist owes his country to confine himself to that speed and save gasoline.

Incidentally, any car that can make 18 miles to the gallon of gasoline at 25 miles an hour, as Finch's Saxon did, and 22.1, as that of Catterlin did, under conditions of the test, which were practically those of everyday driving, it is a mighty economical car in gas consumption.

REPAIRING TIRE OUT ECONOMY

Tires Will Last Much Longer and Tire Filler Is Cheap.

The tread of the tire protects the interior fabric layers. If the tread is deeply cut an opening is provided through which dirt and water effect their entrance. Water quickly rots the fabric, which is being weakened by the blows out from the interior air pressure. Therefore, every little cut in the casing should be plugged as soon as it is discovered to maintain the protective covering over the fabric.

Cut filler is comparatively cheap. You may be patriotic to the extent of saving a few cents worth of wheat or meat, but how about saving several dollars' worth of rubber by plugging in time every tire cut? Buy a vulcanizer which you can do for \$1 or \$1.50, and mend, mend, mend. Tube mending ought to be a form of recreation for the car owner. Large cuts in the casing should be handed over to a tire shop for repair. Don't let the tire beads get rusty on rusty rims. Drive carefully and steer out of the way of large, sharp stones.

You wouldn't drive over a broken bottle, would you? Then why take a chance with a stone bruise, especially if it isn't quite so sure of what it is doing. Change your tires from wheel to wheel. Try to drive as near the center of the road as you can. Keep your tires out of oil puddles in the garage.

AUTO RAILROAD RIGHT BOWER

Vast Majority of Cars in Use Are Required in Business.

"The automobile—the right bower to the railroad," says Charles L. Wright, of Ballou & Wright, local dealers in Racine Country Road and Multi-Mile cord tires, characterizes the motor car, and hushes the countless utility features of the automobile so widely in evidence these days.

He takes the position that the automobile has come into its own as a result of the excessive demands made on rail transportation growing from America's entry into the war. Not that its functions prior to the declaration of war were other than utilitarian. But it took the declaration of war and the resultant conditions to awaken the Nation to a full realization of the motor car's real worth.

"The automobile—the motor truck and passenger car alike—are really America's great secondary system of transportation. Long and short hauls, of merchandise and persons, in an ever-increasing degree, are being made swiftly and economically by the motor-propelled vehicle."

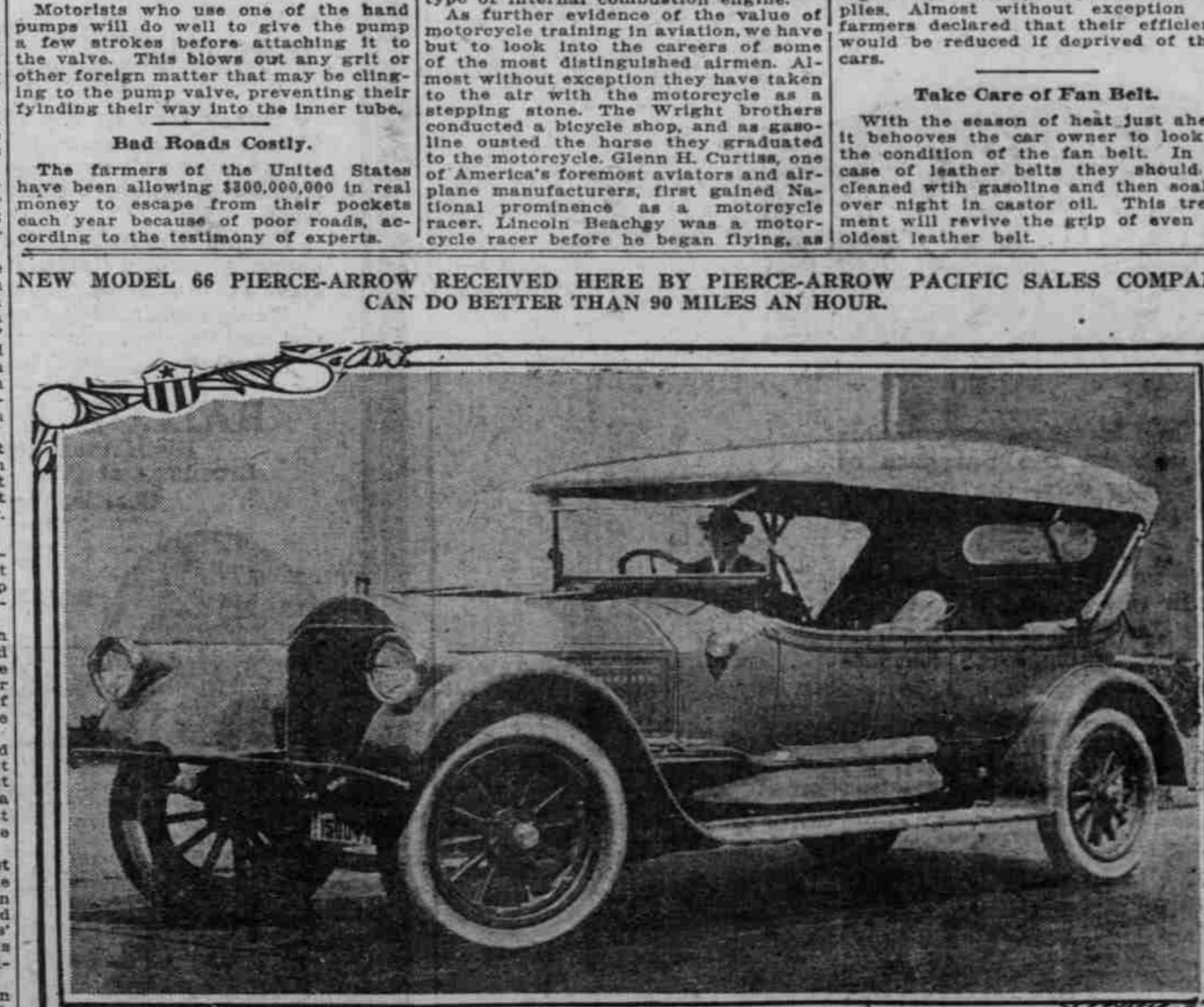
Pump Protection.

Motorists who use one of the hand pumps will do well to give the pump a few strokes before attaching it to the valve. This blows out any grit or other foreign matter that may be clinging to the pump valve, preventing their finding their way into the inner tube.

Bad Roads Costly.

The farmers of the United States have been allowing \$100,000,000 in real money to escape from their pockets each year because of poor roads, according to the testimony of experts.

NEW MODEL 66 PIERCE-ARROW RECEIVED HERE BY PIERCE-ARROW PACIFIC SALES COMPANY CAN DO BETTER THAN 90 MILES AN HOUR.



C. C. Fagan, Manager of the Portland Branch (at the Wheel), of Course Isn't Breaking Any City Traffic Laws by Traveling 90 Miles an Hour, but It's Comforting to Know That He Could If He Wanted To.

One of the finest automobile body jobs ever seen in Portland is that on a Model 66 Pierce-Arrow just received from the factory at Buffalo by the Pierce-Arrow Pacific Sales Company in Portland. The coach work on this car is superb. It is equipped with special imported top and special upholstery. The car is painted onyx brown, with road-cart red wheels. It has four speeds and is geared up and tuned to do at least 90 miles an hour for the owner who cares to travel that fast.

CYCLIST GOOD FLYER

Motorcycle Riders Sought for Aviation Service.

SENSE OF BALANCE KEEN

Naval Aero Expert Says Training of Man on Wheel Is Invaluable Preliminary to Work With Nation's Air Fighters.

In an article written for Motor Life John Edwin Hogg, of the United States Naval Aero Corps, dwells interestingly on the assumption that the nature of his training is invaluable in the making of an aviator of the modern motorcycle.

Hogg says that "the motorcyclist of any extensive experience has acquired in a very high degree that delicate sense of balance without which no one could possibly qualify as an aviator. The very first examination that is given to applicants seeking to enter the United States aero service is the test of this sense of balance and stability. Various machines are used for the test, and if the applicant fails he is rejected immediately. Education or the most perfect physical qualifications count for nothing if the sense of balance and equilibrium is in any way lacking."

Motorcycle Miniature Airplane.

"Most motorcyclists have thoroughly familiarized themselves with the operation and upkeep of their motors and have thus acquired the fundamental knowledge without which a thorough schooling in mechanics would be necessary."

The tiny little motorcycle motor is in reality a sort of Lilliputian aircraft unit. Technically it bears a greater similarity to the airplane motor than any other type of internal combustion engine.

As further evidence of the value of motorcycle training in aviation, we have but to look into the careers of some of the most distinguished airmen. Almost without exception they have taken to the air with the motorcycle as a stepping stone. The Wright brothers conducted a bicycle shop, and as gasoline ousted the horse they graduated to the motorcycle. Glenn H. Curtiss, one of America's foremost aviators and airplane manufacturers, first gained National prominence as a motorcycle racer. Lincoln Beachey was a motorcycle racer before he began flying, and

were also Glenn L. Martin and Art Smith. So on through the list we might go, finding scarcely a single exception.

Road Races Develop Endurance.

"Numerous motorcycle road races, endurance and reliability contests promoted by the Federation of American Motorcyclists during the past several years have developed stability and physical endurance on the part of motorcyclists unquestionably far in excess of what would ever be demanded of them in aeronautics."

"With all things considered, it is worthy of note that on the application blank for enlistment into any branch of the United States aero service appear the questions: Are you a motorcyclist? Do you understand the care and operation and repair of motorcycles and motorcycle motors? The fact that the applicant answers 'yes' to these questions is only a further indication that the motorcycle trained aeronaut applicant is possessed of knowledge of what would ever be demanded of him in good stead in his air work."

CARS NECESSITY TO FARMERS

Haynes Questionnaire Brings Out Strong Evidence as to Utility.

The American farmer considers the passenger automobile an indispensable part of his farm equipment. Without the automobile the farmer would be handicapped to an extent which would seriously affect the highly important food supply.

These facts were set forth conclusively by farmers in their replies to the questionnaires sent out by the Haynes Automobile Company recently. The letters were sent to 1000 owners, picked at random from every state. The fact that approximately one-seventh of the replies were from farmers indicates the extent to which high-grade cars are used by agriculturists.

A Wisconsin farmer says it would be impossible to get along without his car. "I am operating two farms 25 miles apart. This would be impossible without the Haynes," writes an Idaho farmer.

A South Dakota farmer says: "I own several farms, and do not see how I could handle them without a car." The war has made great inroads on farm labor, calling for utilization of every available mechanical device. A Kansas farmer who uses his car to combat this shortage says, "I would be unable to run a farm now, as scarce as farm labor is, without a car."

These replies are representative of the many received by the Haynes Company from farmers. The replies have proved beyond doubt that the efficiency now demanded of the farmer cannot be attained without the automobile. Many mentioned the saving in time when going for machinery, repairs and supplies. Almost without exception the farmers declared that their efficiency would be reduced if deprived of their cars.

Take Care of Fan Belt.

With the season of heat just ahead, it behooves the car owner to look to the condition of the fan belt. In the case of leather belts they should be cleaned with gasoline and then soaked over night in castor oil. This treatment will revive the grip of even the oldest leather belt.

"99 Miller Tires in 100 Outrun Standard Guarantees"



Chain-Like in Uniformity Are Miller Tires and Men

SEVENTY per cent of all tires produced in the United States are made in Akron, Ohio. Here motorists know more than the average about rubber, fabrics and tire building methods. Here the Miller regiment of champion tire builders first became famous. And here Miller Tires outsell at retail every other make. Mark why this preponderance of favor for Miller Tires among those qualified to judge.

First because of Miller stabilized mileage. Because these tires—99 in 100—outrun standard guarantees.

So Miller Tires are known as Uniform Tires. And Miller Tire Builders are known as world champions. These men average 96 per cent efficient. The tires they build are 99 per cent excellent. That means that less than 1 per cent ever need adjustment.



Miller Uniform Tires are something new—the crowning tire achievement. The factor they bring—that is, uniform mileage—makers have sought to attain for years. Miller achieved it by training crack squads to build uniformly.

NORTHWEST AUTO COMPANY

F. W. Vagler, Pres. C. M. Menzies, Mgr. Broadway at Couch Alder at Chapman

Miller Cord Tires are extra capacity, extra resilient and extra strong. Fine, big, good looking and longer wearing than the regulation type—and less expensive on a basis of mileage.

INFLATION MAIN POINT

KEEP TIRES PUMPED UP, SAYS FEDERAL DISTRIBUTOR.

Under-Inflation Sure to Result in Damage to Fabric and Thus Shorten the Life of the Tire.

"The first and last rule for the motorist who would get the longest mileage from his tires is to keep them properly inflated," says C. L. Weaver, Federal tire distributor here.

"There are definite rules covering the proper inflation of tires and we are in a position to supply them to every car owner. When tires are under-inflated and driven in this condition, instead of the resilient action and even distribution of the load, they are cramped between the road and the rim. Anyone at all familiar with the construction of tires knows that they are built up of a carcass composed of the finest cotton fiber, impregnated and coated with rubber, to which a heavy tread is vulcanized.

"They are built so they give resiliency when fully inflated. But when they are run almost flat there is a decided breaking strain thrown upon the fabric. It has a similar effect when the tires are in play to constantly bending wire back and forth in one spot. The wire will break and likewise the fabric composing the foundation of the tire is destroyed and the tire is worthless.

"Overinflation is another evil. In the first place overinflated tires are subjected to undue strain. Then they have not the easy riding qualities in this condition. They are almost like riding on solid tires. The careful motorist will always take care that his tires are properly inflated."

HUSTLE WHILE WAITING, MOTTO

Hyatt Roller Bearing Company Has Practical Slogan.

There is a valuable message on one of the framed motto cards recently distributed among motor car executives by the Hyatt Roller Bearing Company. The motto on the card bears this inscription: "All things come to those who hustle while they wait."

That message, according to E. G. Koether, of the motor bearings division at Detroit, was the impelling thought back of the success of the Hyatt Company.

"I remember it first decorating the 'office' in a tumble-down frame building that sheltered a handful of machines and men," he said. "I remember it next in a two-story building made of brick. And then I recall it in the all-high office of a group of brick buildings before a paved road that once was dirt. Then the scene changes and I see a still larger plant—23 great buildings, the present Hyatt plant—and I hear the hum and noise of thousands of machines, busy workers and motor lorries. In a big private office at the end of a long hall hangs the same motto: 'All things come to those who hustle while they wait.'"

Ontario in the first three months of the year had an increase of 10,000 in the number of car licenses taken out, compared with the corresponding period of last year. The total number of licenses for motor cars in the Province of Ontario to March 31 was 48,500. There are 4618 licensed chauffeurs in Ontario and 2000 licenses for motorcycles.

How to Take Bumps.

Many drivers do not know how to take the bumps easily. A good way is to throw out the clutch and apply the footbrake gradually. This reduces the shock so that many times it may not be noted by those riding.

More Autos in Ontario.

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to come in and for it to stop raining before he makes his next call. And incidentally he is certain that he would make a better sales manager than the present one, but he, too, is "waiting."

"Go through any business organization and you will find this waiting policy the fundamental fault of a good many hundred souls.

"But recently there has been a change. I think it is partially the effect of the war. You find more men and women every day now who realize that war and success in business and everything else is won—in fact, all things come to those who hustle while they wait."

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BATTERIES

Now Available for You—With the Expert Services of

"Doctor Spark"

If you'll investigate its merits and many special features, you'll be sure that your next battery is a VESTA.

Gibson Electric Garage & Storage Battery Co.

12th and Alder, Portland.



STUTZ THE CAR OF QUALITY

A limited number for immediate deliveries of the new Bear Cat Model can be made. Exclusive colorings and custom-made tops for your selection.

Auto Rest Garage

Distributors for Oregon C. M. McPhail, Mgr. C. W. Osborne, Prop. Main 3237 Tenth at Salmon