

COACH BODIES ARE BUILT BY NEW METHODS

George Moriarty, manager of the Harold L. Arnold distribution house here, in a communication received from Harold L. Arnold, notes that "the motoring public has shown a great deal of interest in the new Essex coach, and much surprise has been expressed that so much car and coach value can be obtained for the price."

"Regardless of price, the Essex coach is a better car than ever before," says Mr. Arnold. "The coach body frame is built complete in a manner entirely new to the art of enclosed car manufacture. Progressive assembly features give economy by reducing the cost of manufacture. Ash, hard maple and elm, from which the principal frame members of the Essex coach body are made, are subjected to several months of air drying, and then to a held at 6 to 7 per cent. This thorough seasoning treatment prevents warpage."

"The hard maple sills of ample proportions give a solid foundation for the framework. The wood used for door pillars is ash, which is selected because it is light in weight and yet very strong. Thus, body balance is assured as well as proper door support and alignment. The roof side members are elm, held in square alignment by hard maple crossbars. Straight pieces—straight grained—

are selected for the building of the Essex coach body."

One of the special security features of the Essex chassis which is distinctly an Essex advantage of great importance to the driver's safety is the unique connecting link between the steering gear and the front wheels, known as the drag link. In the Essex it is made from a single piece of seamless steel tubing.

LETTER "X" IS USED BY KELLY

The simple letter "x" has served a good many purposes from that of puzzling the youthful minds in the algebra class to the more difficult problem of serving as a title for a popular play. Now it has been chosen to serve the double purpose of a distinguishing mark on Kelly-Kel Slip cords and to form the non-skid surface of the tire, says Bob Roberts of the Phoenix Rubber company.

The engineering service department of the Kelly-Springfield company gave this problem serious consideration for several months, according to Roberts, and finally determined upon the letter "x" as the most logical solution of the problem.

"The reasons for this letter being selected for the tread on Kelly-Kel Slip cords is an interesting story," he says. "Make a small 'x' with a pencil and note the angles and straight lines encouraged by any object endeavoring to cross the letter from any direction. If the cross-bars forming the 'x' are made of heavy, sharp-edged pieces, these straight lines and angles will be formed of edges to further impede the movement of any object."

"Thus the sharp-edged 'x' built on the surface of a tire provides the most effective non-skid surface. The series of these sharp-edged 'x's' built up from the tire furnishes a sure road grip in all directions. No matter which way the tire is pushed or turned, there is always a sharp edge in contact with the road to prevent slipping."

Installs His Own Trouble-Shooter On Ford Ignition

That up-to-date equipment has every thing to do with the success of a service department or repair shop is the contention of J. T. Staples, foreman and shop electrician for Ed Rudolph. In support of his contention, Staples points with pride to his methods of getting to the root of ignition troubles. As a result of a trip back to the Ford factory where he incidentally stayed for six years, Staples returned to Ed Rudolph in 1920 with keen ideas as to shop equipment and management. He immediately started to work to rig up his own service stand for shooting ignition troubles, and many a Ford owner can now testify to the efficiency of this new device.

That every man should specialize in his own work is Mr. Staples' con-



Scene from "The Mikado" as presented by the famous Dunbar Opera Company at the Elks Theater today, matinee and night

attention, and he has assigned every man in the Rudolph shop to the work he is best suited to or has followed. Carpenters, men work or car-buretors, machinists handle machine work exclusively, men who are adept at motor overhauling are assigned to this type of work, and so on. The results of this system have been very gratifying.

"And we are not resting on our laurels," declared Mr. Staples. "for we are making improvements just as fast as we see the need for them. It is one thing to be a good mechanic and another to keep abreast of the times. Generally the two go hand in hand and they must do so of necessity if the proper results are to be obtained."

SALE MOMENTUM IS ACCUMULATED BY CADILLAC

Larry Quinlan, manager of Babbitt Brothers, declares that production has been speeded up in the big Cadillac plants in Detroit, in response to a demand from dealers and distributors for cars in greater number than is usual at this season of the year. A total of nearly 7,000 in the working force, a figure close to high-water mark for the Cadillac organization, has reached this week. The increase in employment has been steady and gradual ever since the tremendously successful introduction of the Type 61 models.

Orders for the new Type 61 Cadillac he says are coming in from every section of the country, some dealers placing them for hundreds of cars. The success of the Cadillac is attributed to its world-wide reputation for dependability and good service. At the New York Auto Show, Cadillac did more actual business than at any previous show in that city, and results at Chicago were similarly encouraging. The cars were listed at a price lower than that asked for any other high quality car on the market and demand for them is unusually widespread. Dealers and distributors in almost every state have united in placing big orders.

The factory is on the biggest production schedule in its history, and larger by 20 per cent than is ordinarily the case at this season of the year. With sales as high as they have consistently been in the months of January and February, the Cadillac executives know that they are facing a big year, and their arrangements have been completed to take care of the demand.

The Clark Avenue plant of the Cadillac is the largest plant in the world devoted exclusively to the production of quality cars, and 7,000 men are employed there, and in the other Cadillac plants, in the manufacture of the Type 61 Cadillac. The organization is now in its twentieth year of continuous production, and stands as the oldest automobile company in Detroit. It has the distinction of having sold more than half of the high quality cars marketed in this country for the last three years.

The stability of the Cadillac manu-

facturing organization as a whole is evidenced by the fact that nearly 70 per cent of the officials, superintendents and foremen have been with it ever since the first eight-cylinder car was put on the market 8 years ago; 1200 employees have been Cadillac men for five years or more; 500 have had that honor for 10 years, and 80 for 15 years or more.

BATTERY'S JOB TO TAKE PLACE OF IRON CRANK

"In selecting a battery," says Tom Spaulding, "one must bear in mind that its job is to give a short powerful turn to the engine, such as a muscular arm would accomplish on the crank."

"This is better termed 'cranking ability,' which every battery, no matter how cheap, must have in sufficient quantity to properly start the engine. It is this starting ability and not amperes hour capacity which a car owner should demand in a battery."

"Whether the battery has the capacity to keep turning the engine continuously for 15 or 20 minutes is of little importance because the battery in normal service is called upon to deliver cranking current for only a few seconds at a time."

"Broadly speaking, what is required is the capacity of the battery concentrated in a short spurt of current delivered with a punch rather than spread out in a thin stream over several minutes."

"The second consideration in choosing the proper battery is long life. In designing the Exide, no attention has been paid to how long it can deliver current at a certain rate. This is a non-essential quality in an automobile battery. Instead, every effort is directed toward increasing its 'punch' or cranking power and in lengthening its life."

"The result is a battery that has as much cranking ability and long life as it is mechanically and scientifically possible to build into a battery of its size. Thus we have in the Exide an automobile battery without a fraction of an ounce of superfluous weight or an inch of bulk—a very important essential in any automobile or accessory."

WILLYS KNIGHT RESUMES SEVEN PASSENGER CAR

Herbert Hotchkiss of the Overland Arizona company, in speaking of the surprises featuring the Chicago show, states that John N. Willys again presented the thousands of visitors at the Chicago automobile show this year with a new thrill of surprise



TOM MOORE and HELENE CHADWICK in "FROM THE GROUND UP" GOLDWYN PICTURE P-2-2 COL.

Coming to Mauk's Columbia Theater Next Tuesday and Wednesday

when, with the opening of the show, models of two new seven-passenger Willys-Knight cars were disclosed in the exhibit space of Willys-Overland company.

The new Willys-Knight seven-passenger car is the logical successor of the Willys-Knight cars of similar size manufactured by Willys-Overland company up to 1919 in which year they were discontinued to make way for the big production on the Overland model 4 and the Willys-Knight model 20, both new models.

The new seven-passenger Willys-Knight as displayed at the Chicago show won the instant admiration and approval of the great crowd because

it follows closely in lines and finish the superb five-passenger Willys-Knight now entering upon its third year.

The new Willys-Overland creation is a car with a 124-inch wheel-base and uses 32 by 4 1/2-inch tires. The hood design follows the distinct hood lines of the five-passenger Willys-Knight. The power and transmission plants are those that have proved so consistently reliable in the Willys-Knight models now in production. The gear ratio is 5 1/2 to 1.

Wireless waves travel at the same speed, regardless of their lengths.

The Outstanding Value Among the Fine Light Sixes

THE NEW

CLEVELAND SIX

THOSE who have been accustomed to fine quality recognize in this new Cleveland Six the same high standards of excellence for which they have heretofore paid a high price. Those who have denied themselves such a car now find it within their reach.

Incorporated in this Cleveland are the individual style, the riding comfort, the dependable performance and the durability of large, expensive cars, without the extravagance of surplus weight and its consequent waste.

No Car Can Boast of Finer Engineering

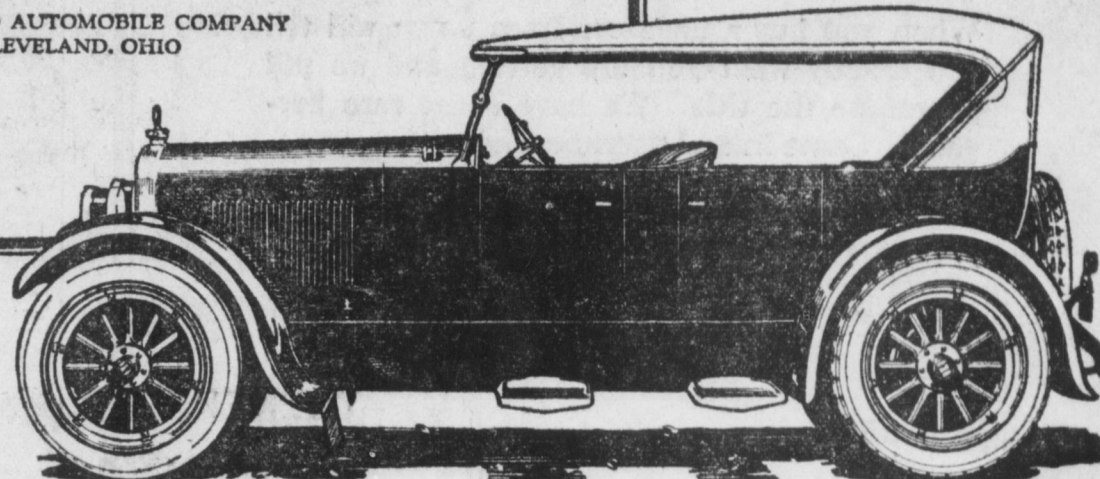
Take for instance one mechanical detail. Each piston and each connecting rod is carefully weighed and made to exactly balance each of the other five. This practice has only been carried out on very expensive cars, and it is one of the many fine features which help to produce the smooth operation and durability of Cleveland's dependable overhead valve motor.

One ride will convince you that this Cleveland Six is so replete with quality that it cannot be classified by its low price.

CAL MESSNER

Fourth Ave. and Adams St. Phone 1386-4218

CLEVELAND AUTOMOBILE COMPANY
CLEVELAND, OHIO



TOURING CAR

\$1195

Roadster . . \$1175

SEDAN

\$1595

Coupe . . \$1550

All Prices F. O. B. Cleveland

Tires With 500 Nail Holes Leak No Air

A new puncture proof inner tube, which in actual use was punctured 500 times without showing the loss of any air when tested by a tire gauge, has been invented by Paul B. Coats, an electrical engineer of Chicago. It is inflated with air and has the same appearance as the regular inner tube, yet it removes all the necessity of changing tires when the castings are entirely worn out. Cars using these tubes are making from 5,000 to 12,000 miles without removing a tire from the wheel. A wonderful feature of this new tube is that it can be produced and sold at about the same price as the ordinary tube. Mr. Coats has turned over all rights on his invention to the Milburn Puncture Proof Tube Co., 328 W. 47th St., Chicago, who wants to place these tubes in a few cars here. They will make a very liberal offer to anyone who wishes to try them at the company's risk, until a distributor is appointed for this territory.—Adv.

Greatest Price Slashing OF USED CARS Ever Held in Phoenix

We are closing out our entire stock of over thirty popular makes of used cars at prices never heard of before. Every car has been gone over mechanically, refinished and is guaranteed. Your last chance to buy a good, rebuilt automobile from a house with a reputation, at 50 per cent under value. Look them over today.

1921 Oldsmobile 6 Touring . . . \$650

This car has been thoroughly gone over from stem to stern and looks and runs as good as the day it left the factory.

1920 Oakland 6 Touring . . . \$595

This car has had very little use. The tires are all new, non-skid cord, the top, paint and upholstery is practically new. An ideal family car and can be bought on very easy terms.

1920 Mitchell Roadster . . . \$595

This is the Victory model. Seats three people, has just been refinished a very pretty blue and it cannot be told from new. Two spare tires and other extras.

1919 Chandler Dispatch . . . \$865

Without question one of the prettiest sport model cars in town. Has brand new cord tires, including spare, refinished Persian blue. Classy and snappy, and will give very easy terms. Don't fail to see this.

1919 Buick 6 Touring . . . \$685

This is the Light Six five passenger. Has all brand new tires, new top, not a scratch or mar on it and the motor is exceptionally quiet. This is a real Buick.

1919 Jordan 6 Touring . . . \$650

This Jordan 6 is in wonderful shape throughout, has brand new seat covers, costing \$65. Has been refinished a beautiful tan. Top is new. Wire wheels. New Fisk Cords, bumpers, front and rear. You have to see it to appreciate it.

1919 Kissel 6 Roadster . . . \$695

One of the prettiest roadsters that we have ever rebuilt. Has four brand new non-skid tires, special red top and upholstery and has been refinished to match. If you are looking for a roadster out of the ordinary you won't be disappointed in this one.

1918 Nash 6 Touring . . . \$495

You can't go wrong on a good Nash, and this one is right. The top and paint is new, the motor is perfect and at the price we're giving it away. If you don't believe it come down and see it.

1918 Chalmers 6 Touring . . . \$295

This is the Light Six five passenger. Has good seat covers, top and tires. Motor is in good shape and it is an exceptional buy at this price. Will give terms.

198 Ford Touring . . . \$195

A mighty good Ford. The condition of this car is better than the average. Has new top, new tires and repainted.

We have on hand about 15 others that are not listed here that the prices have been cut down to the bottom. This sale is for ten days only and you will never have a chance to get such values again. Will give easy terms and give a good allowance on your old car in trade.

Open all day Sunday.

Palace Garage

423-25-27 West Adams Street Phone 4265

FABLES OF 1921

—By MARTIN

