

### HUPP PRODUCTION BREAKS RECORDS

#### Freight Car Shortage Makes It Necessary to Drive Cars to Destination

By standing an almost unbelievably increased expense on account of the freight car shortage and material market which reached its most acute point in January and February, the Hupp Motor Car Corporation succeeded in producing and shipping more cars this year than even during the record breaking winter months of 1916, according to a statement just made by C. D. Hastings, vice president and general manager of the corporation.

"As I view the motor car situation at present, it is one of production and shipping," said Mr. Hastings. "Even with our increased production, orders for immediate shipment have piled up on us and the month of March finds us with orders for nearly 2,000 cars for immediate delivery. These orders we are filling as fast as production and the freight car situation will allow, but each day finds orders piling up still more. The breaking up of winter weather will aid us greatly in getting machines to the distributing points as they can be driven overland in greater numbers. The opening of lake traffic next month will also be of great benefit."

"The material market continues to be a source of trouble. From the time the European war was well under way the prices of practically all materials used in making motor cars, as well as all other manufactured articles, have been constantly on the increase. At first this condition was received with much concern by those in the industry, but after several rapid advances in the prices of foodstuffs, textiles, metals and all manufacturing materials, the whole situation was taken more as a matter of course. As a matter of fact, during the last winter, prices of parts and materials, like most necessities, have increased more often than before although not as much has been said about the advance of raw materials as about the increasing costs of food and clothing. This was because price increases became a regularity rather than a novelty in manufacturing lines."

"The redeeming feature of the situation, however, is the big demand for cars from all over the United States. Our orders do not come from any particular section or sections, but are distributed well over the entire country. This fact shows a healthy condition of business in general and our own in particular."

### Gasoline Standard As Adopted by Detroit

Following a series of investigations conducted by C. C. Hinkley, chief engineer of the Chalmers Motor Company, and J. C. McCabe, Detroit city engineer, the City of Detroit has adopted a set of standards for gasoline which must be strictly observed by all dealers in the city.

Designated as "Detroit City Standard," the new type of gasoline is defined as a liquid hydro-carbon obtained by straight distillation or by the cracking process and having a boiling temperature not exceeding 450 degrees Fahrenheit. It must distill at least 20 per cent. at 220 degrees Fahrenheit and 50 per cent. under 300 degrees Fahrenheit, when tested by the distillation test provided for in the ordinance.

Any mixture of gasoline and kerosene which does not measure up to this test must be labeled "Mixed G-K" and sold as a mixture of the two oils. Signs designating the quality of the gasoline sold must be plainly displayed on the pump from which the liquid is drawn so that the customer knows which type he is paying for.

With the constantly decreasing quantity of the gasoline being sold in our city streets to-day, we decided it was time to stage a campaign of education for the benefit of motorcar users," said Mr. Hinkley, discussing the new ordinance. "For test purposes we purchased samples of gasoline at different stations around Detroit and tested it for kerosene. We found that 25 per cent. of the liquid was kerosene. The big oil companies blame the various dealers for the adulteration and have O. K'd Detroit City Standard as a method of protecting the public from an inferior product."

"We are sending the Detroit formula to other cities and are endeavoring to start a nation-wide campaign which will materially improve the operation of cars for hundreds of thousands of automobile owners."

### Duplex First to Apply Power to Front Wheels

The Duplex truck, which is now manufactured by the Duplex Truck Co., of Lansing, a million-dollar corporation, is the original four-wheel drive truck.

For several years the Duplex truck was manufactured at Charlotte, Michigan, with a small number of motor trucks being placed on the market each year.

The development of the Duplex truck was watched, however, by several Lansing automobile men, and a few months ago they organized a corporation and purchased the Charlotte factory. This company also controls the basic patent on the application of power to front wheels through external or internal gears.

The company's president and general manager, H. M. Lee, entered the automobile industry in the early days, being a graduate of the bicycle business.

Mr. Lee was thoroughly convinced of the many superiorities of the Duplex truck before he became the head of the Lansing company. He says that as a competitor, Duplex performance demonstrated to him that it would consistently out-pull and out-last more costly trucks on lower operating and upkeep costs.

Mr. Lee asserts that Duplex trucks in U. S. army service, in lumber camps and oil fields, in engineering, mining and contracting service have hauled heavy loads and done heavy work, have stalled even when unloaded.

Since Mr. Lee became head of the Duplex Company the capacity of the Lansing factory has been trebled, and building operations are about to start in Lansing. When the new factory is completed the production will be increased to ten trucks per day.

### JEFFERY SIX IN LARGER NUMBERS

#### Increased Schedule of Production Throughout Present Selling Season

An official statement has been made by C. W. Nash, president of The Nash Motors Company, that a large production order has been issued on the Jeffery Six, and that this car, incorporating certain changes and refinements, will be continued throughout the season as the product of The Nash Motors Company.

This is the first official declaration of policy made by C. W. Nash, the manufacturing and merchandizing genius, who has held the center of interest since his acquisition of the big Jeffery plant last September.

So much conjecture has been current as to the probable manufacturing policy which Mr. Nash would pursue that this announcement has aroused much interest both among the trade and the general public.

Mr. Nash, in outlining his reasons for this decision, states that since his purchase of the Jeffery plant, he has examined the construction of the Jeffery Six in every detail, and put it to every test of machine shop and road. These tests, he says, convinced him that the Jeffery Six was one of the best motorcars made in this country.

Some slight changes have been made which Mr. Nash says have still further improved this car.

In reviewing some of the points of Jeffery Six construction, Mr. Nash says, "I have been in the business of building and selling carriages and motorcars for some twenty-five years. But I can say frankly that I have never known a car that was better constructed than this Jeffery Six."

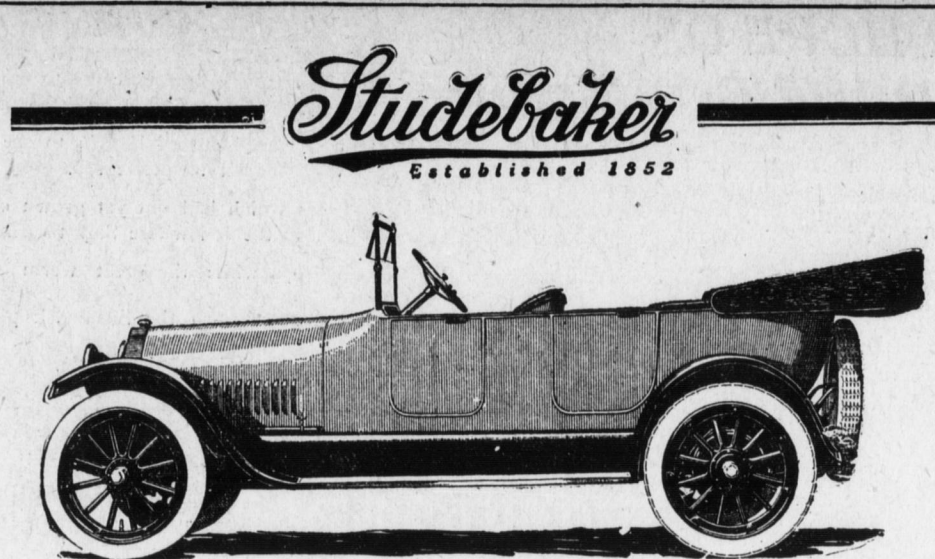
"I have personally inspected this car in every detail. Some of the things which I learned about it surprised me. For instance it has more alloy steel in its make-up than most American cars. Alloy steel is a superior material because of its great strength and resistance to wear. But because of its great toughness it is difficult to machine. It is also much more costly than ordinary carbon steel."

"Another unusual feature about Jeffery Six construction is the fact that nothing but best grade white ash is used in the bodies."

"After I had satisfied myself on the various points of construction I tested this car for performance, driving it over every kind of road. I found that it was extremely flexible, that the 55-horsepower motor permitted a range of speed on 'high' from two to sixty miles an hour."

"Then I called our engineering staff into a conference and we went over this car together. We saw where we could make a few slight refinements which would make it a still better car. These improvements have all been made and I am sincere when I say that I think the Jeffery Six is one of the best cars built in this country to-day."

"We here at Kenosha are so well pleased with the improved Jeffery Six that we have decided to continue its manufacture throughout the present season. In fact we are even increasing the production of this particular model."



### More Power at Less Cost.

Both Series "18" Studebaker FOUR and Series "18" Studebaker SIX are noted for their great power, and especially their great power in ratio to their very low consumption of gasoline.

It has taken Studebaker four years to improve, refine and perfect the wonderful Studebaker motor. It has been solved through the experience of 250,000 cars in the hands of owners. It is only, through an evolution like this, that perfection can possibly be developed.

There are no secret processes; no basic patents; no features of design that are unknown or prohibited by patents. The Engineer can use what he wishes, but he can only know how to use the best features by continually improving, refining and perfecting—through the experience of a motor in actual service.

This is why Studebaker can truthfully claim that the design of its motor is unsurpassed in simplicity, accessibility and power. By the refinement of reciprocating parts, vibration has been reduced to an almost unobservable minimum.

The bearing areas of the motor have been enlarged and increased, giving greater durability, more strength, still further insuring smooth, vibrationless operation.

But you cannot appreciate the splendid POWER of the Studebaker car until you TRY it.

FOUR-CYLINDER MODELS	SIX-CYLINDER MODELS
FOUR Chassis ..... \$ 885	SIX Chassis ..... \$1150
FOUR Roadster ..... 985	SIX Roadster ..... 1250
FOUR Touring Car ..... 985	SIX Touring Car ..... 1250
FOUR Landau Roadster ..... 1150	SIX Landau Roadster ..... 1350
FOUR Every-Weather Car 1185	SIX Every-Weather Car ..... 1450
	SIX Touring Sedan ..... 1700
	SIX Coupe ..... 1750
	SIX Limousine ..... 2600
All Prices F. O. B. Detroit	All Prices F. O. B. Detroit

**Driscoll Auto. Co.**  
147-155 S. Cameron St.  
Harrisburg, Pa.

### Indians Now Use Wrench And Hammer on Motor Cars

Almost on the very site of some of the bitterest wars waged a century ago by his ancestors in defense of their hunting grounds, the American Indian to-day helps the paleface build his "devil wagon."

Just a few miles from Fort Meigs, Miami and some of the other battle-grounds of "Old Man Harrison," "Mad Anthony" Wayne, Tecumseh, and other warlike leaders of another day, is the main factory of the Willys-Overland Company, one of the most important units of the automobile industry.

In this factory are a score of full-blooded Indians—Chippewas, Navajos, Pinos, Pueblos—sent there by Uncle Sam from their western reservations to learn another of the trades of the white man.

These Indians are taking to their training like so many ducks to water. They are very interested in learning what makes the wheels of the automobile go round.

Some of the Indians are assigned to various duties in the assembly of one of the Willys-Overland models.

One pair aids in chassis assembly; another pair assembles wheels; five of them are engaged in final assembly while still others work on running boards, etc.

Instead of being confined permanently to one operation, they are shifted every few months from task to task, in order to give them a general practical knowledge of motor car construction, such as is required by good mechanics, garage men and automobile repair men.

"The work of the Indians is a source of much satisfaction to us," says the foreman of their department. "The Indians we have are among our most willing, most accurate and most painstaking workmen."

To top this off, they are very ambitious and are reading every bit of literature they can find in connection with their work, in order to acquire a better knowledge of the relation of their own particular task to the manufacture of the whole car.

### Preparations Under Way For Bumper Chalmers Year

"With one of the largest manufacturing plants in the country and a manufacturing schedule of 30,000 cars for 1917, it is hard to realize that the Chalmers factory just nine years ago consisted of one building in thirty acres of Michigan prairie," says W. L. Agnew, director of advertising for the Chalmers Motor Company.

"For the past eight years, there has scarcely been a month when some new addition to the Chalmers plant has not been in the building process," continued Mr. Agnew. "During the first fiscal year of the company, 3,000 of the famous old four-cylinder Chalmers 30's were turned out. To-day those same 1909 cars are still piling up the mileage. Many of them have over 200,000 miles to their credit. 'Old Reliable,' the first Chalmers 30 built, has passed the 500,000 milestone and is still going."

"At the present time the 30 acres of land on which the factory was located are covered with 25 giant factory buildings, manned by 6,500 workers. Many departments are working on a full twenty-four hour schedule. Within the past year a huge main building has been erected, adding 100,000 square feet of floor space up to \$25,000 square feet. Recent purchases of additional property and proposed new buildings will again increase the magnitude of the plant in 1917."

"We confidently look forward to the greatest year in our history and are preparing for it on a larger scale than ever before. Chalmers dealer representation has been increased greatly and competition for desirable territory is rapidly closing the few remaining points now open."

### Cadillac Manager Honored With Testimonial Plaque

The dealer organization of the Cadillac Motor Car Company recently expressed its regard and esteem for Wilfred C. Leland, vice-president and general manager of the Cadillac company.

Mr. Leland was presented with a handsome gold and silver tablet, mounted on Circassian walnut, the whole executed by Tiffany. The inscription reads: "To Wilfred Chester Leland, in recognition of his conception of the high speed, high efficiency V-type engine and its application to the motor car. From Cadillac Old Guard."

The tablet is of silver. At the top appears in a panel a relief representation of the front end of the Cadillac eight-cylinder V-type engine. The relief is done in gold. On one side of the panel is a figure representative of Mercury and on the other side a figure representative of the goddess Ceres. At the bottom of the tablet, in its conventional circular form, appears the trademark of the Cadillac—a wreath around the coat-of-arms of La Mothe Cadillac. The coat-of-arms also is in gold relief.

### Peerless Prices Will Be Advanced in April

Effective April 9, 1917, the Peerless Motor Car Company, of Cleveland, Ohio, builders of the Peerless two-power-range Eight, will advance the prices of all but one of its models. The one model not included in the increase is the new Sporting Roadster, which will continue to sell at the attractive figure of \$2,250. The touring car and roadster are each advanced from \$1,950 to \$2,090, an increase of \$140 on the Standard model.

The unusual feature of the Peerless announcement of an increase in price is the fact that the notice can prove very little if any incentive to the taking of orders under current prices. This is because the large number of orders accepted by the company prior to announcement of the new price schedule will require all of the cars that it is possible for the factory to produce between now and April 9, the date when the new schedule takes effect, in spite of the fact that an entire new plant has been added to the Peerless establishment, increasing the passenger car facilities by nearly a half million square feet.

The pronounced growth in Peerless output of pleasure cars is evident in the following notice which is being sent out from the factory to all distributors.

"Prospective purchasers of the Peerless Eight who contemplate specifying delivery even as late in the spring as June, should take prompt action and file orders with distributors at once. As spring weather approaches, the demand for the Peerless Eight is quickening. This demand, together with the unusual shipping conditions which confront us, makes the precaution of an early order doubly important."

### Chevrolet Plants Cover Millions of Square Feet

The seven factories of the Chevrolet Motor Company in the United States and Canada cover 2,474,097 square feet of floor space, an area equivalent to fifty-six and a half acres.

This group consists of fifty-six buildings, not including annexes and wings, situated at important industrial centers from the Atlantic to the Pacific coasts.

The manufacturing plant at Flint, Mich., with subsidiary plants at Toledo, Ohio, and Bay City, Mich., are made up of 35 buildings, covering 1,086,824 square feet.

The assembling plant at Oakland, Cal., covers 133,672 square feet; at St. Louis, Mo., 239,525 square feet; at Oshawa, Ontario, 13 buildings, covering 431,695 square feet; at Fort Worth, Texas, 128,150 square feet; at Tarrytown-on-the-Hudson, N. Y., two buildings, and in New York City, three buildings, covering 441,861 square feet.

This entire area if included within the limits of one city would occupy over a thousand city lots.

The minimum production of Chevrolet automobiles for 1917 is placed at 150,000 cars.

### HALL HEADS I. C. C.

Washington, March 17.—Commissioner Henry C. Hall was elected chairman of the Interstate Commerce Commission yesterday, following the custom of annual rotation in office. Mr. Hall was appointed to the commission by President Wilson in January, 1914, to fill the unexpired term of Charles A. Prouty, resigned, and has had personal supervision of the commission's divisions of law and inquiry.

### KILLED BY FALLING TANK

Sunbury, Pa., March 17.—Struck by a falling side of a steel tank car at the American Car and Foundry Company's plant at Milton, Matthew Irvin, aged 27, received injuries from which he died shortly after being admitted to the George F. Gelsinger Hospital, at Danville. He was unmarried.

### PHYSICIAN DIES SUDDENLY

Sunbury, Pa., March 17.—Dr. M. H. Groton, 40 years old, of Batavia, N. Y., died suddenly of uraemic poisoning here. He is survived by his wife.

### PAIGE

the Standard of Value and Quality  
Fairfield "Six-46" seven-passenger.  
Fleetwood "Six-38" five-passenger.

E. L. COWDEN  
R. J. CHURCH, Salesmanager  
108 Market Street



5-Passenger Touring ..... \$695  
3-Passenger Clover Leaf Roadster ..... \$695

Ensminger Motor Co.  
THIRD AND CUMBERLAND STS.  
Bell Phone 3515

### Franklin

--the efficiency car  
more miles—  
less gasoline—  
more comfort—  
less weight—

E. W. Shank  
107 MARKET ST.

### AUTO STORAGE

First class, fireproof garage, open day and night. Rates reasonable.

### Auto Trans. Garage

37-29 North Cameron St.

**Pilot** \$1150  
4-Passenger Roadster and Touring  
"THE CAR AHEAD"  
COPYRIGHT, 1916, PILOT MOTOR CAR COMPANY.  
**ENSMINGER MOTOR CO.**  
Third and Cumberland Streets, Distributors, Harrisburg, Pa.

**Willys-Overland**  
Motor Cars  
Permanence

When an institution, almost from its inception, takes the commanding position in its field—

And when that institution maintains that commanding position without interruption over a series of years—

Then you may be assured of that institution's integrity—both as to its product and its dealings with the public.

From an output of 465 cars eight years ago the Willys-Overland industry has grown steadily and this year our dealers have contracted for more than 200,000 cars.

Our net resources have grown in that time from a little more than fifty thousand dollars to more than sixty-eight million dollars.

This year we are building the most comprehensive line of motor cars ever produced by any one concern.

They include Fours, Sixes and an Eight.

If yours is a family of average size, you will be particularly interested in the comfortable, powerful, Big Four at \$850 or Light Six at \$985. They exemplify the remarkable values characteristic of the entire line.

When you buy any car in the Willys-Overland line you are assured by our commanding position in the industry, by our unequalled facilities and resources, of integrity of value in your car throughout the whole period of its performance in your service.

**The Overland-Harrisburg Co.**  
212 North Second St.  
Open Evenings Both Phones

Big Four \$850  
Light Six \$985

**The Willys-Overland Company, Toledo, Ohio**  
Manufacturers of Willys-Knight and Overland Automobiles and Light Commercial Cars

