

**EXPERTS HAVE BEEN BUSY**

**Latest Fruits of Inventors' Brains Will Be Seen at Auto Show.**

**PROFITS ARE NOW SMALLER**

**While the Profit Per Car Has Been Materially Reduced, the Quantity of Sales Makes Up Difference.**

Many new ideas will be seen at the Omaha automobile show, which opens at the auditorium Monday night. High priced experts have been racking their brains to have their make of cars surpass all others and the results will be of interest to the visitors at the show.

In the effort toward economy and beauty in the construction of bodies the manufacturers have lengthened their springs and wheel bases, have used deeper upholstery, have provided more leg room in both tonneau and front seats and have equipped their cars with larger tires. Several companies are putting out cars with seats tilted back, while there was noticed a car in which the rear seat could be adjusted to suit the pleasure of the occupant.

In beauty of design and finish the bodies turned out by the American builders are now considered the equal of the foreign product, which for many years led the way. Most of the foreign chassis which are now being sold in this country support bodies built by Americans. There seems to be a tendency toward the stream line body, which is growing in favor both here and in Europe. The removing of tanks, tool boxes and tire racks from the running boards is a movement in this direction.

**Products Are Standardized.**

The progress that the standardization idea has made in the last year is remarkable. Many of the manufacturers are announcing that they will limit their chassis production to two models, or even one type, this year. Where there are two or more models of chassis most of the parts are interchangeable in many instances, the only difference being in wheel base and a few other points.

To enumerate the various changes in design and mechanical construction would require a volume. The mechanical changes for the most part, however, are of a minor nature. Few radical departures from the accepted types of motors are in evidence. The manufacturers are convinced that the power plants of the present day are those approaches to the best that can be evolved and consequently they are turning their attention to the refinement of detail and the production of fine bodies.

Possibly the most noticeable feature of the show is the evidence of how rapidly the industry has adopted the self-starter in the last year. At the time of the 1912 show the self-starter was still a novelty to the great majority of automobile owners. Today the manufacturers who have not equipped their cars with a self-starter are in the minority. The perfection of this device has done more to interest women in the actual running of a motor car than any other improvement recorded in the history of the industry, declare the manufacturers.

**Elaborate Equipment.**

The addition of the self-starter to the regular equipment of most makes is but one indication of the length to which the makers have gone in turning out fully equipped machines. With practically every car the manufacturer of today delivers equipment which in the first days of the industry would have been sold to the owner for a stiff price in addition to the cost of the machine. It is not because the manufacturers are making more money on their cars that they are doing this. As a matter of fact the profit per car to the manufacturer was never so small as it is now. But the making of motor cars has ceased to be the gamble that it was a few years ago. While the profit per car is smaller the aggregate profit of quantity manufacturing is many times that of former years. The business is now on a business basis. Waste is eliminated and the public derives the benefit.

**Three Rules for Selling Autos Are Given by Manager**

"From the dealer's point of view there are three principles which make for successful automobile salesmanship." So says Ernest H. Cadmus of the Regal sales organization. "These principles include: 'Still hunting' your prospects, being square with the public and concentrating on one line.

"By 'still hunting' your prospect I mean," says Cadmus, "the giving of a demonstration without attracting attention. Have your man come to the garage and arrange a demonstration in such a manner as not to attract attention to the fact that he is a prospective buyer. Men are more pleased with such arrangements than they are to have themselves publicly paraded.

"As for satisfying the public, every reputable dealer knows that his greatest assets are the satisfied owners in his territory. Do everything in your power to keep them satisfied. Let the owners feel at liberty to drive into the garage and have their cars looked over. If it is a matter of adjustments merely, or insignificant repairs, make no charge. You will find the owner glad to pay when he meets with an accident and has to have repairs. Furthermore he will patronize your place of business when he needs something new."

**OHIO ELECTRIC HAS SIMPLE PLAN OF SHOWING CONTROL**

A very simple plan is employed by the Ohio Electric Car company to show visitors at the show the operation of the Ohio system of control. A strip of chassis, which is handsomely finished off in orange and white enamel, has been equipped with controller and steering lever, battery and a series of lights, the latter mounted on a platform at the front end of the chassis.

The system of control used in the Ohio electric is known as the "magnetic" type, as distinguished from the "drum" type employed in many cars. The controller is mounted on an arm attached to the steering lever. It consists of a small gutta percha disc, carrying a nickel cup. Turning the disc operates a series of plungers inside the cup, which govern secondary electric currents, which in turn actuate a series of magnets that bring about contacts in the primary circuit.

The lights on the front platform turn on and off when the several speeds are brought into play. Reverse speed and magnetic brake are indicated by colored lights.

**BUY HIGH GRAVITY GASOLINE**

**Tests Show that Gravity Determines the Number of Heat Units.**

**POWER IS IN EXPLOSION**

**Consequently the More Volatile Gasoline Develops a Much Higher Efficiency of Service to Engines.**

When the fellow with the low gravity test, cheap gasoline filled with heavy ends, tries to show you how much power you can get out of his gasoline, because of the great number of heat units it contains, it's time for you to begin to reason not with him, but with yourself.

Turn over in your mind the mechanism of a gasoline engine. They are all constructed to get rid of heat units. Air chambers are built in them to permit the

heat to travel out of them. Water tanks are provided and pipes run through each engine to keep it cool.

If motive power actually came from heat units, every gasoline engine would be so constructed that they would retain the heat units.

The fact is true in a steam engine. Every means possible is used to conserve the heat and prevent the steam from condensing.

The salesman who argues that low gravity test gasoline produces a greater number of heat units than a high gravity test gasoline is right in that particular only. It's true, but it isn't true that heat units produce the motive power that drives a gasoline engine. If it were, no gasoline engine would be so constructed as to get rid of the heat.

**Power is in Explosion.**

Actually, the motive power of gasoline lies in its explosion caused by its coming in sudden contact with hydrogen. That being true, the more volatile the gasoline, the greater will be the driving power.

Not only is that true, but the less is your engine apt to run hot.

It stands to reason that the higher the gravity test, the more volatile will be the gasoline.

When the low gravity gasoline man tries to show you the great advantage of low gravity gasoline as a power driving force for your auto engine, do a little thinking and you'll soon determine how illogical is the argument. A study of the following will prove of benefit to you:

Gasoline is a combination of carbon and hydrogen. The most perfect fuel for combustion engines would be hydrogen gas, could we have it in liquid form as we have the gasoline; the greater the percentage of hydrogen it contains, consequently, the greater the power producing force. The statement that the lower gravity gasoline contains greater power value is an actual impossibility, the intent being to convince the consumer that the lower the gravity the greater the power element, but really intended to

quiet his mind to the fact that he is being deprived of power while using low gravity gasoline.

The power that drives your engine does not come from the heat units, but from the explosion of gasoline.

Therefore the gasoline with the heavy ends and having greater heat units is less explosive than the lighter gravity and more volatile gasoline. As a matter of fact, the gasoline with the heavy ends is a resistance to engine driving power.

The investigations of Dulong, Favoy, Silbermann, Laplace, Clement, Dupreix and other chemists of equal note give us these basic facts:

One pound of hydrogen burned in water produces 62.53 British heat (more recently known to be power) units. One pound of carbon burned to carbonic acid gas produces 12,900 British power units. This establishes the fact that as a factor of power one pound of hydrogen is equal to approximately five pounds of carbon.

**What Analysis Shows.**

The following analysis of the two more

commonly used gasolines will be interesting to automobile owners, as they have never been published before.

One pound of 70-degree gravity gasoline contains 174 pounds of hydrogen and 328 pounds of carbon. This would produce 10,811.90 power units from the hydrogen and 10,590.57 power units from the carbon, with perfect combustion, totaling 21,402.47 power units for the pound.

One pound of 62-degree gravity gasoline contains 164 pounds of hydrogen and 336 pounds of carbon (note the decrease of hydrogen and the increase of carbon) the hydrogen producing 10,280.50 power units and the carbon 10,774.536 power units. This totals 21,055.036 power units.

This shows that the 62-70-degree gasoline has 456,984 power units per pound in excess of the heavier gravity gasoline. Power units are power, and as one power unit equals 78 foot pounds and 33,000 foot pounds equal one horsepower, the 62-70-degree gasoline produces 11.43 more horsepower per pound. This is equal to 66.91 more horsepower per gallon

than is developed by the lower gravity gasoline.

The use of a 62-70-degree gasoline has the advantage of creating more rapid and perfect admixture with air, forming greater combustion and a product of power more regular than a lower gravity. Also decreases the need of excessive cranking when the engine is cold and permits the longer use of the batteries after they have become weakened by use.

If absolute freedom of carbon is desired, exercise care in buying gasoline, as poor gasoline is just as frequently the cause of carbon formation as poor oil.

**More System Needed.**

President George A. Kissel of the Kissel Kar believes that the progress of the motor truck is bounded only by the boundaries of civilization. Mr. Kissel acknowledges that there is much to be accomplished before the truck reaches its highest efficiency, but puts the burden on the truck user. "More system in loading, unloading and driving will greatly multiply the haulage economies ahead, brought about by the substitution of motor for animal power," says Mr. Kissel.



There have been as many Overlands delivered in the past five months as all the factories of Germany can make in a whole year.

There have been as many Overlands already contracted for this year as the combined factories of France can make in one year, and twice as many as those of England.

How could such a demand be created by anything but the most car for the least money?

One Overland dealer alone will handle 4,000 cars during 1913. This is as many cars as 90 per cent. of the American factories make in a year.

Whenever you find the greatest demand you can depend on getting the greatest value.

Forty thousand people buy Overlands and lower the cost for each other. For when 40,000 people insist that their car be built in one factory—each comes at the rock bottom price.

When you buy an Overland, as compared to others, you get it at wholesale. Buying materials for 40,000 cars, makes our production cost the lowest in the world. And you save the difference.

In the state of Minnesota, our sales gain in 12 months was 98 per cent. The nearest competitor's gain was only 87 per cent; the second competitor's only 55 per cent.

These figures except no car represented in Minnesota. They are conclusive evidence that the Overland is the fastest selling car in America.

Forty prominent German engineers, in an effort to find a weak spot, tore down an Overland that had run over 5,000 miles. They could not find a single flaw, or a worn part.

Our exceptional value has always puzzled and astounded the world. But when you take into consideration the economy of building 40,000 cars a year you have the answer. The market for the best product is always unlimited.

We sold 400 cars in 1908; 4,000 in 1909; 15,000 in 1910; 15,000 in 1911; 28,000 in 1912; and are making 40,000 for 1913.

Year after year Overland value has increased. But our prices have steadily decreased as our production cost has been lowered.

Elsewhere you must pay \$1200 for a similar car. Study the value below.

**The Willys-Overland Company, Toledo, Ohio**

**Van Brunt Auto Co., Distributor**

J. M. EVANS, Omaha Salesman.

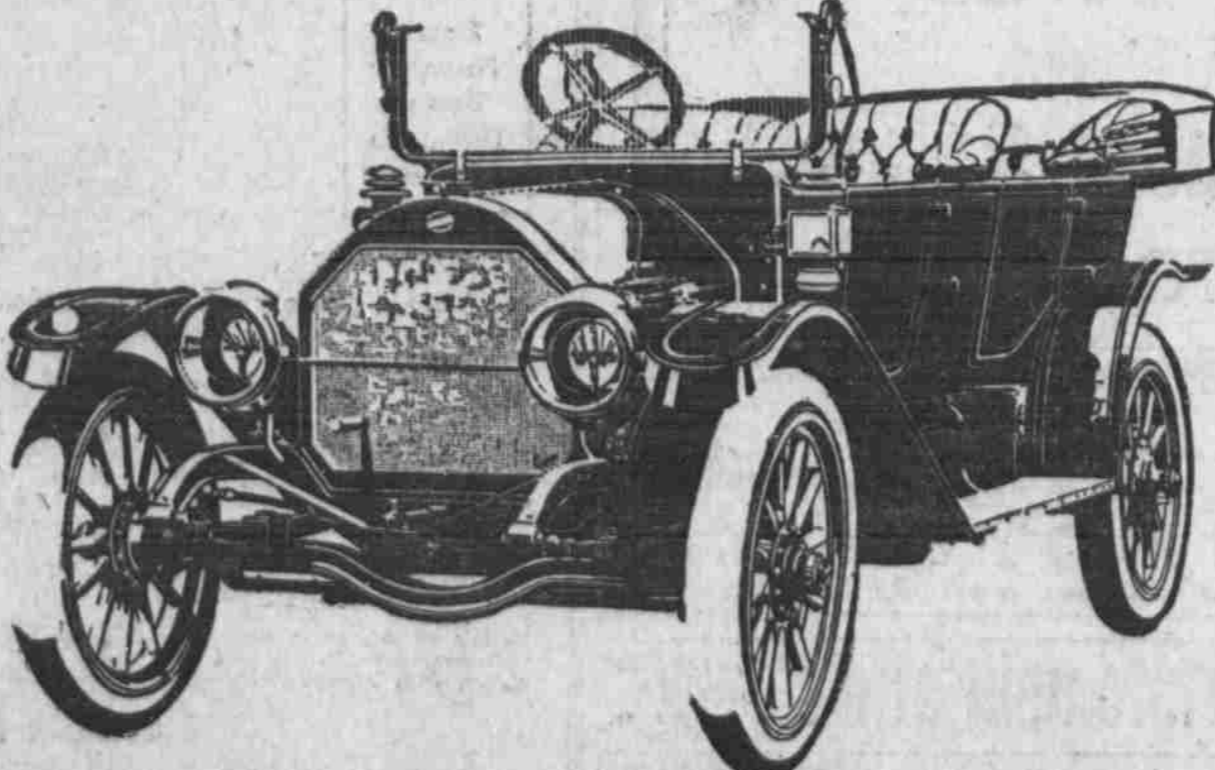
COUNCIL BLUFFS, IOWA—and 2010 FARNAM STREET, OMAHA.

**\$985**

F. O. B. Toledo

**Completely Equipped**

- Self-Starter
- 30 Horsepower
- 5-Passenger Touring Car
- 110-inch Wheel Base
- Tincken Bearings
- Center Control



**\$985**

F. O. B. Toledo

**Completely Equipped**

- Remy Magneto
- Warner Speedometer
- Mohair Top and Boot
- Clear Vision, Rain Vision Wind Shield
- Prest-O-Lite Tank