THE OREGON SUNDAY JOURNAL, PORTLAND, SUNDAY MORNING, JULY 23, 1911.



Higher Development in Late **Construction** Demonstrated -Progression Greater Than Ever Before.

There are many evidences to show that motor cars for the 1912 season will be found higher developed than in any previous year. The improvements are not only detailed but principles as well have been changed, and to a degree that perhaps would not have been believed possible by many who have felt that motor car development was reaching the limit of its progression. As a matter of fact, the changes from one season to another have never been so important or as many in any previous year as are contemplated for 1912.

The Columbia car with the new Rnight motor is a good example of this higher development and new thought. Much that has gone before and accept-ed year after year is now swept away and a complete new system of entrance and exhaust of explosive gas is prowided for one thing, while unheard of Inbrication efficiency is demonstrated for another. Hardly any changes have come in valve mechanisms since 1905, when mechanical valves became general and the automatic or suction type inlet was abandoned.

Parts Reduced.

In the Columbia Knight motor the whole scheme of cam-operated push rod, mushroom or tappet type valve is climinsted, the train of front engine gears is cut out and the number of parts reduced about one-third. The valves in the Columbia silent Knight type motors are slide valves operated by a half time shaft which is driven by a German type of silent chain. The motor is of the four cycle type, the regular suction, compression, firing and scavenging

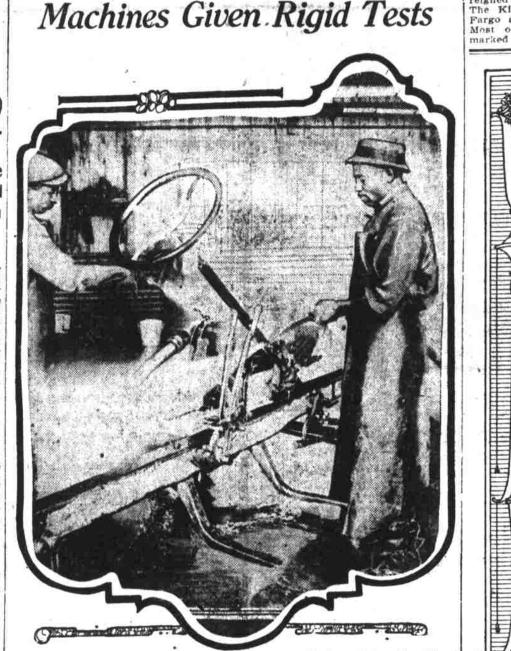
strokes following in succession as in a tappet type four stroke motor.

There are two sleeves with large area other when they are reciprocated by the hardest conditions obtainable, so proved unsatisfactory. ment, provides twice the valve opening merea for the entrance and escape of gases and allows the use of a compres-sion chamber design having least cu-it is caked with mud and oil and must bical contents and therefore a very be washed. much greater measure of power is obtained. without motor racing and a maximum horsepower of 85 is reached.

New Oiling System.

making a resting place for the night in a convenient spot by the road or on the The advance in motor designing is iso shown in the Columbia oiling sysbanks of a stream. tem, which has been further refined and progressed. This system is a combina-tion pressure and splash and since it ticularly California, for the motorists was introduced in Columbia cars has there seem to have gone into it with become known as the Columbia movable even more enthusiasm than is apparent dam system. The crank case dams are in the east and the middle west. Out in arranged that they may be raised or lowered so that the connecting rod scoops deep enough into the troughs if the speed is fast or the work hard as in hill climbing, while the dams are lowered automatically when the work is

light, as in ordinary travel. This is accomplished by connecting the troughs immediately below the con-



Washing autos after a hard durability run, at Hudson Motor Car Company's factory in Detroit.

Few purchasers have any idea of the particle of grease; and with hot water strenuous tests to which lielr machines again. If any of these washings is are subjected before they get them. At done imperfectly, trouble results when a first class factory, like that of the the paint is applied.

At first the men who did the washports cut into each side and these Hudson Motor Car company in Detroit. At first the men who did the wash-eleeves come into register one with the the whole machine is tried out against ing wore rubber boots, but these soon The gasoline the action of the half time shaft. This that any defect may be remedied before quickly ate holes in them. making it accomplishes a noiseless valve arrange- it is too late. For hours each machine very expensive to keep the men sup-

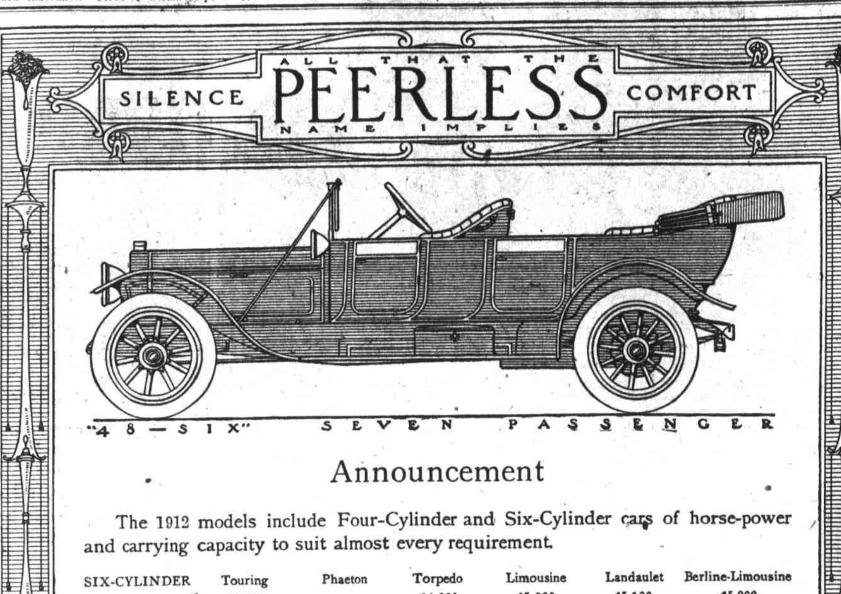
bottom from 1/2 to 11/2 inches thick. While the new Columbia Knight at least six times with water to re- wear them first encase their feet in motor has the cylinder dimensions to indicate a taxable horsepower of 38 under the A. L. A. M. rating rule, the fact is that 71 horsepower is realized without motor racing and a maximum with gasoline that eats out the last they defy both water and steam.

1SE



after passing 15 minutes in Crookston

reigned supreme all along the route The Kirt car was the last to leave Fargo and the Hupmobile just ahead. Most of the little cars are showing marked endurance. Tired by strain of Mr. Henpeck-Are you the man wh reigned supreme all along the route The Kirt car was the last to leave Fargo and the Hupmobils just ahead. save my wife a lot of impudence? Mr. Scrapper-I reckon I am. Mr. Henpeck-Shake! -Path Finder.



You're

The 1912 models include Four-Cylinder and Six-Cylinder cars of horse-power and carrying capacity to suit almost every requirement.

		SIX-CYLINDER	Touring	Phaeton	Torpedo	Limousine	Landaulet	Berline-Limousine
		38-Six *	\$4,000	141	\$4,000	\$5,000	\$5,100	\$5,200
PPP		48-Six	5,000	\$5,000	5,000	6,000	6,100	6,200
		60-Six	6,000	6,000	6,000	7,000	7,100	7,200
		FOUR-CYLINDER						47 500
		40-Four	\$4,300	\$4,300	\$4,300	\$5,800	\$5,400	\$5,500
		24-Four		<u>:</u> #		4,200	4,300	
		These models	are disting	guished by ne	ew types of F	ore-Door Bod	ies, individu	al in design and
目目	built very roomy and comfortable, for both open and enclosed cars. Among the important conveniences of the 1912 Peerless are the Power-driven Tire Pump							
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		for easy and clean	nly inflating	of tires and	the Dynamo	Electric Light	ting System,	which supplants

Among the important conveniences of the 1912 Peerless are the Power-driven Tire Pump for easy and cleanly inflating of tires and the Dynamo Electric Lighting System, which supplants the gas tank and oil lamp, affording a brilliant, effective light for every lamp on the car.

We are now prepared to accept orders for early delivery. Demonstrations by appointment.

H L Keats Auto Company

Seventh and Burnside Streets Portland Dealers also in Peerless Commercial Cars

with the crank case on pivoted ends, and connecting them with bell cranks directly to the throttle. When lowered with a slightly opened throttle the dams easily overflow and the scoops touch but lightly. When the throttle opened wide the dams are raised and thus contain more lubricant while the raised troughs allow the scoops to dip deeper and thus cause more oil to circulate in the splash system.

Interesting Feature.

The Columbia Knight motor presents a light and neat appearance, so simple and ingenious is the planning. The fact that the cylinder heads are bolted on and may be readily removed for easy cleaning is a feature sure of appreciation by motorists and the water jacketing system is so complete that a practically even temperature is met up and down the length of the cylinder wall. The use of engaging gears is dis-pensed with in the motor since not only the lay shaft but the magneto and pump drive are, too. by the German or Coventry type silent chain.

While the Knight type motor is new and is representative of the advanced thought, its wide foreign use commends it to respectful attention. The English Daimler and Rover cars in Great Britsin, the Panhard in France, the Mer cedes in Germany, Minerva in Belgium and Italian Daimler cars, have each accepted it and for three years it has been the sensation abroad, echoes of which have floated back to this country, where it was conceived by C. Y. Knight, and there is every promise of its great success in America.



Present Season Promises to Be Greatest in History of Country.

"This promises to be the greatest ummer for automobile touring that this country has ever known, if we may judge the general trend of reorts from Cadillac owners," says Sales Manager E. R. Benson of the Cadillac Motor Car company.

"During the last two weeks, we have had dozens of letters from Cadillac owners, telling us that they contemplate trips of anywhere from a a month, and not infrequently longer in duration. In addition to this, almost every Cadillac representative who has been at the factory in the past month-and I have seen nearly all of themtells us of other owners who have started on tours, or are planning them. "All of this is a very good thing for the states through which the tourists will pass. I say this, because in the past, the automobile has done more forward the good roads movement than any other single agency; and as the number of tourists increases, so this influence is bound to increase

"It points to another thing-the more general recognition of the motor car as a means of seeing the country in the most pleasant and unrestricted way. Many a touring party is independent of fowns and hotels, carrying with them justs and other camping necessities and

meeting rods and placed transversely alias H. Robert Moore, a spiritualist Grand Forks, N. D., July 22 .- With wanted in Oakland, Cal., for stealing \$700 from Mrs. Walter Benzen, esideal weather the third day's run of caped from the police here today when the Twin City-Helena automobile tourthey attempted to arrest him. ists left Fargo and spent an hour in Grand Forks. The cars arrived here

Elephant's Leg Dedicated.

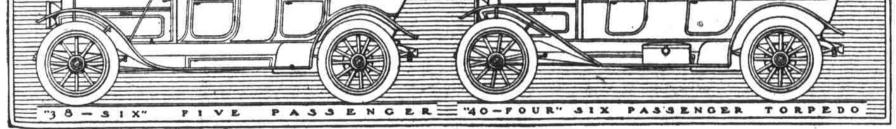
Thieving Spiritualist Escapes.

(United Press Leased Wire.)

Boston, July 22.-Robert

(United Press Leased Wire.) hette, Wis., July 22.-While as guests of the Automobile club there Marinette, Roads this morning were above the oushing a chuck cart along a muddy standard set the first two days constreet, Jumbo II, a big elephant belongtrary to predictions. The Great North. a circus showing here, slipped, ern hotel train beat the autoists from fell and dislocated a hind leg. Fargo to Grand Forks. Enthusiasm

Sinclai



1911

12 H. P., 2 cylinders, complete as shown, including top with slip cover, oil and gas lamps and generator, Bosch magneto. A few second-hand machines (used by canvassers) \$350

We are also now ready to demonstrate the 1912 Metz "22"four-cylinder, water-cooled, complete with top and lamps, \$675. Orders booked for future delivery.



