

SELF-STARTERS NOW DESIGNED TO MEET NEEDS OF AUTOISTS

Devices Made Simple in Their Application; Many Kinds to Be Found in Portland.

Among the new appliances which should interest motorists who attend the National Automobile show, in the Grand Central Palace, New York, January 3-10, are the self-starting devices which this year will be found in a majority of cars exhibited. The self-starter is not a new device, but so rapidly has it become perfected in its two years of existence that today practically all large cars, and a few small ones, are fitted with them. The two national automobile shows, under the auspices of the Automobile Chamber of Commerce, in New York and Chicago, will reveal in the most comprehensive way the strides made in the improvement of these devices.

Several Kinds of Designs.
Self-starters are now so designed that the apparent complication of pipes, wires and similar features have been greatly reduced, so that today they have reached a high standard of simplicity. There are several kinds. Some depend on the storage of power in springs, air-tanks, or batteries, the power being applied to turn the crank shaft and cause the engine to begin its functions. Others self-starters simply insert the combustible charge into the proper cylinder, and by its ignition cause the engine to take up its rotation and work. Both kinds have arguments in their favor.

Probably the earliest forms were those in which the power needed to turn over the engine was supplied by springs. These were arranged to be wound up by the engine when running, and by throwing a lever or pressing a button, they would be brought into service, and turn the crank shaft several times. A number of this sort of starter are still on the market, and are doing good work. Another early form involved compressed air, instead of a spring. The air was fed into the proper cylinders and turned the engine until it took up its work.

Storage Batteries Used.
The electric starters use storage batteries of not large size, into which a sufficient amount of power can be carried to run a small electric motor for some time. This motor gears to the engine in such a way that it turns it over; but as soon as the engine takes up the work the electric motor drops out. Finally, it recharges the battery and leaves it again ready for use.

The other form of starters carries gas or gas and air, under sufficient pressure to cause them to flow into the cylinders, where, being ignited, they take the place of the proper charge, until the engine has been turned over sufficiently to draw in the regular mixture. These devices are slightly less complicated, and somewhat cheaper, but the tendency seems toward the starter in which the power is stored, rather than the potentiality. There is also a third kind of starter, which, while not really self-starters, are often classed therewith. These are simply devices for cranking the engine without the use of the usual hand crank. Ropes or straps to pull, or pedals to push, or stirrups to stand in and let the weight turn over the engine, come into this class.

Many Kinds Found Here.
Right here in the city of Portland practically every kind of starter mentioned can be found on some make of automobile. Even the little Ford car now has a special starter that is being offered by the accessory dealers. This consists of a lever much the same as the gear shifting lever, which is attached to a chain that is in turn fastened to the crank shaft, and when you pull the lever the chain working on two wheels turns the engine over until the ignition takes up its regular work. The new device is becoming very popular among the Ford owners in this territory.

SCENIC HIGHWAY TO GREAT FALLS, MONT., IS BEING CONSIDERED

Wonderful Route to Be Known as "James J. Hill Highway" Would Attract Tourists.

A new and wonderfully scenic highway has been suggested as a means of luring the transcontinental tourists to Oregon and Portland. The route is along the present Columbia highway to The Dalles, Pendleton, Walla Walla, Spokane, across the state of Idaho, and on to Missoula, Anaconda and Butte, Montana, from Butte north to Great Falls via Helena. From Great Falls there will be a state highway to St. Paul from which there will be a main highway that will connect with the present Lincoln highway, the main transcontinental road from the Atlantic to the Pacific.

Failure to appreciate his own country and ignorance of the scenic and historic attractions of the United States are faults common to the average American tourist. Tell him that there are mountains in the northwest that compare favorably with the more famous peaks of Switzerland and he will laugh at you. If the road outlined above is ever officially recognized as an east and west highway, the scenery to be seen along the route cannot be surpassed in any part of the world, say travelers who have seen it.

Scenery from Portland.
From Portland one may see the snow-capped peaks of Mount Hood, St. Helens and Mount Adams. Along the Columbia highway, which is now under course of construction, the scenes overlooking the Columbia river, and the many beautiful water falls along the route cannot be adequately set forth in words that in any way describe their grandeur. The famous apple district of Hood River and on to The Dalles.

From this point a side trip to Crater Lake would be possible. But following the main highway, which it has been suggested to call "The James J. Hill Highway," in honor of the man who has done most for the development of the northwest, to the wheat region of Pendleton, and so on over this wonderful route the tourist would pass through every variety of country. There would be mining, mountains, valleys of grain of all descriptions and pastures overstocked with cattle.

That this route is feasible, and in fact the best route from the northwest east to the coast, is attested by the several tourists who have made the trip over the northern route during the season just closed. When the tourists get into the Montana district they have the Glacier National Park and the Yellowstone to their two of the greatest government reserves in America.

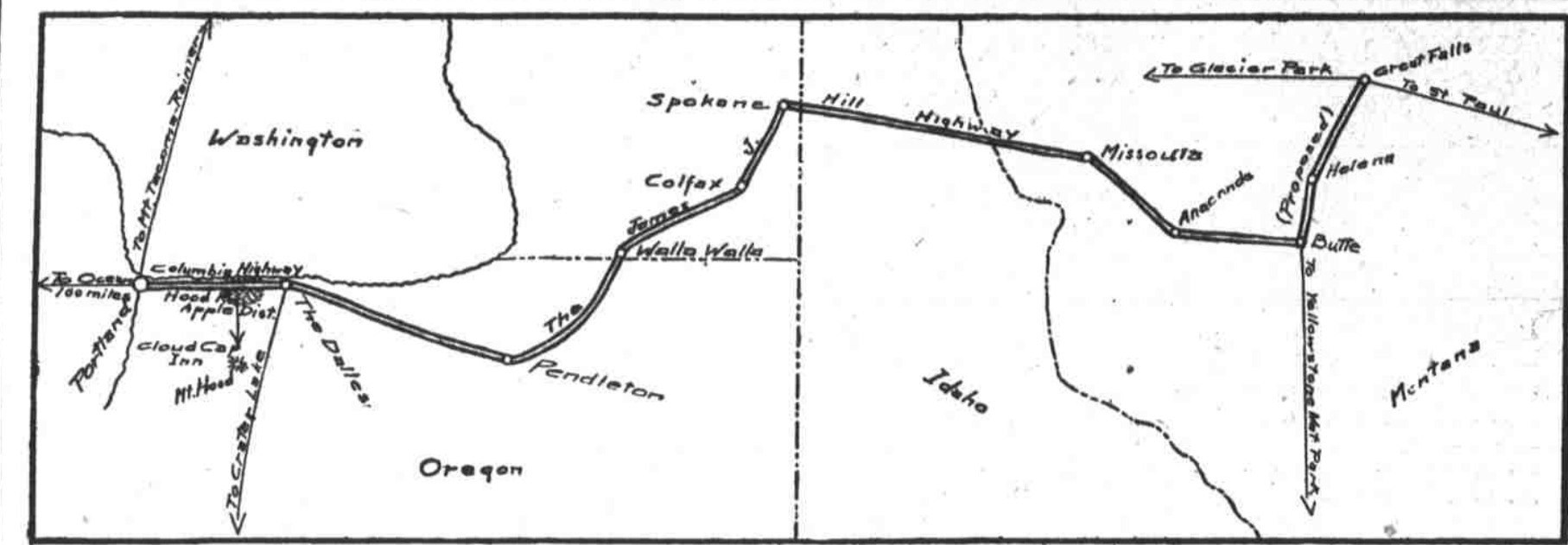
Incorporation Is Suggested.
In order to further the "See America First" movement and prove to the skeptical that this country has as great scenic attractions as any of the countries abroad that the American people love to spend so much money to see, it has been suggested that the above road be incorporated and fostered by a hundred and fifty or 200 prominent men along the route.

Say 50 men from Portland, and then one or two of the most prominent men in each town through which the highway would pass. An annual donation of \$100 each, for a period of two or three years, should be sufficient to properly place this highway on a nation wide transcontinental basis.

The automobile department of The Journal would like to have suggestions from some of the local good roads boosters as to their ideas of handling the greatest highway ever proposed for Oregon. Space will be given in these columns weekly for the discussion of the proper way to get "The James J. Hill Highway" under way.

Women always say their husbands coax them to go away for the summer—and sometimes this is the truth.

ROUTE SUGGESTED FOR JAMES J. HILL HIGHWAY



Columbia highway would be followed to Pendleton, thence to Walla Walla and Spokane; from there to Missoula, Butte and Helena, ending at Great Falls.

SUBSTANTIAL GAIN IN AUTOMOBILE BUSINESS IS SHOWN BY FIGURES

Increase in Cars and Trucks for July, August and September Is 71,884 Cars.

Registration in Each State.	Number
New York	121,793
California	118,136
Illinois	90,522
Ohio	79,427
Pennsylvania	73,324
Iowa	68,120
Michigan	53,301
Massachusetts	52,034
New Jersey	45,899
Indiana	45,000
Minnesota	43,700
Texas	36,500
Wisconsin	35,931
Missouri	34,901
Kansas	32,980
Washington	27,220
Georgia	23,382
Connecticut	21,829
Dist. of Columbia	14,116
South Dakota	14,080
Maryland	13,526
Colorado	13,000
North Dakota	12,925
Tennessee	12,200
Oregon	11,349
Nebraska	11,702
South Carolina	10,500
Maine	9,557
North Carolina	9,300
Virginia	8,787
Rhode Island	8,784
Florida	8,764
Oklahoma	8,100
Louisiana	7,000
Kentucky	6,847
Montana	6,490
Vermont	6,472
Alabama	5,300
New Hampshire	4,947
West Virginia	4,925
Arkansas	4,825
Mississippi	4,100
Arizona	3,000
Idaho	2,200
Delaware	2,169
Wyoming	1,550
Utah	1,418
Nevada	1,054
New Mexico	786
Total	1,229,530

One of the most significant indications that the automobile business in the United States is increasing and prospering is the fact that registration of automobiles and motor trucks up to October 1 totaled 1,229,530, allowing for a duplicate registration of 25,441. This represents an increase of 71,884 cars and trucks for the months of July, August and September, or over 23,961 a month. Of this number 1,125,267 are passenger cars of the gasoline type, while the electric passenger cars number 24,075. According to the most accurate figures obtainable, there are 89,605 commercial vehicles in use in this country, comprising 69,418 gasoline machines, 17,857 electric, 2560 steam passenger cars and some 250 steam trucks.

In most respects there is a substantial gain over the figures up to July 1. Gasoline passenger cars have increased 72,901 and gasoline commercials 2353. The figures for the electric are somewhat lower than at the time of the July census, this being due to the fact that very few of the registration officials are systematic enough to segregate the various classes of vehicles and the estimates furnished by the various local authorities are slightly lower than at the previous time.

In securing the information for this article the Automobile requested the registration officials to give, wherever possible, the number of non-residents registered in the state, and also the number of registrations made owing to transfer of ownership of cars. The number of non-residents registered in the United States, according to their figures, up to October 1, was 7187, while the number of re-registrations was 18,288, making the total amount of duplicate registrations 25,441.

Practically everyone, whether actively interested in the automobile industry or not, is curious regarding the number of cars in the country and in various sections. For several years there has been a more or less close contest, for the honor of having most registrations, between New York, California, Illinois, Ohio and Pennsylvania, the five states which have consistently led the country in this respect since registrations were first made.

People who drift with the tide make a poor landing.

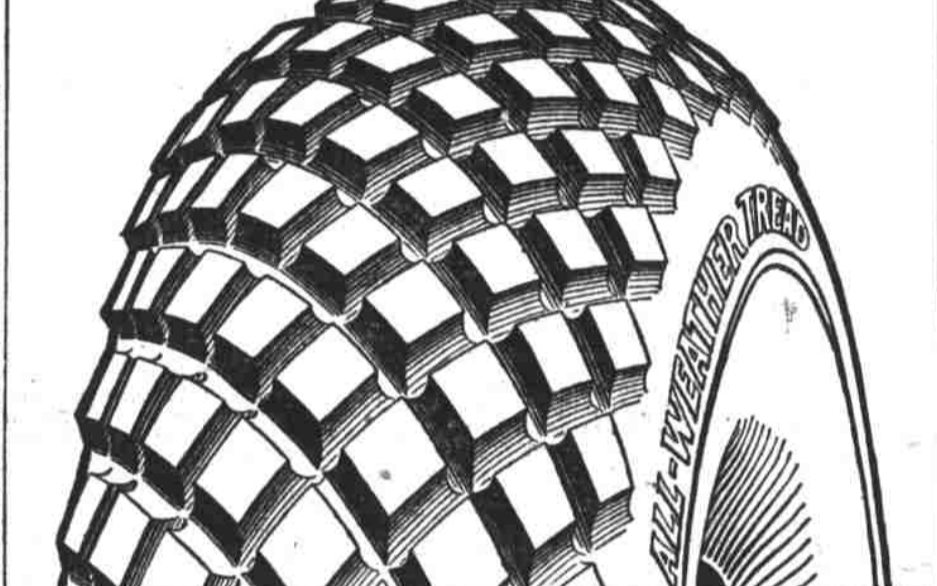
DETROIT FACTORIES MAKING BIG RECORD

Detroit, Mich., Dec. 20.—Detroit is manufacturing more automobiles than it did a year ago, and this notwithstanding the rumors that so many gossips moving in and out among the industry would try to set afloat. Ford is turning out over 700 cars per day, which is in excess of the production at this plant a year ago. For 1914 Cadillac increased its output from 15,000 to 18,000 and, in addition to keeping up with its schedule of delivery, the company had built on December 1, 2880 of these additional 2000 machines so that the company is well ahead in its year's work.

At the Studebaker plants the overtime program is in actual operation. The enormous Buick plant is working at full force to fill orders; The Chalmers company is working up to factory ca-

DETROIT FACTORIES MAKING BIG RECORD

capacity, Hudson is pushing its little six production at a full capacity pace. Paige-Detroit will move into its new factory in 30 days where it will have facilities to double its 1913 output. From all of the other Detroit auto-



All-Weather Treads

Run Like Smooth Treads Last Like Plain Treads Hold With a Bulldog Grip

This is the tread which is outselling plain treads with users of Goodyear tires. And now—as winter approaches—every wheel on every car should have it. Here seems to be the final solution of all our anti-skid problems. It is a double-thick tread made of extra-tough rubber, toughened by a secret process.

The grips are deep and enduring. They last for thousands of miles. They never entirely wear off. The edges are sharp, and they stay sharp. They face the skidding direction, which is 45 degrees. As a result, they offer all road surfaces an almost irresistible grip.

The blocks are broad and flat. They are all in alignment, following the tire's direction. There is no vibration as with scattered projections. The tread runs as smoothly as a plain tread. The blocks widen out so they meet at the base. Thus the strains are distributed over the fabric just as with smooth-tread tires. That means long life. Separate projections center the strains at one little point in the fabric, causing short-lived tires.

So here is safety combined with economy. Here is plain-tread smoothness, plain-tread durability, combined with tenacious grip. You will find nothing of the kind that compares with it. Inspect this tread and you are bound to select it, especially for winter driving. And yet most old-type anti-skids cost more than All-Weather treads.

Good Year No-Rim-Cut Tires With All-Weather Treads



Exclusive Goodyear Features

Here are three other vital features found in No-Rim-Cut tires alone. First, a type of tire which we control, and which hinders rim-cutting completely. No other feasible way has ever been found to do this. And rim-cutting ruins almost one-third of all the old-type tires. Second, a tire which saves countless blow-outs due to wrinkled fabric. The tires are final-cured on air bags shaped like inner tubes—under actual road conditions. This extra process, used by us alone, adds to our tire cost \$1.50 daily—just to lessen blow-outs. Third, in making this tire, hundreds of large rubber rivets are formed to prevent tread separation. We paid \$50,000 for control of this patent. Thus we combat the three main items in the cost of tire upkeep. We have saved motorists in these ways many millions of dollars. As a result, the largest-selling tires in the world today are Goodyear No-Rim-Cut tires. And more are adopting them every day—as fast as men find them out. Until you come to them, a large part of your tire cost is wasted in needless ruin.

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mobile factories come equally optimistic reports. Lozier is working overtime on its new four; needless to say Packard is at capacity on its new model. Hup is busy; in Pontiac the Oakland and Cartercar factories are busy; the plant of the Detroit electric, one of the biggest in the electric field, is at capacity production. The Briggs-Detroit is at schedule and the Keeton plant is busy. Look where you will, all is activity in Detroit's automobile plants at the present, and, from all indications, this healthy activity is a normal condition.

SCENIC WONDERS ARE RELOCATED IN OREGON

The geographical location of two of the northwest's famous mountain peaks, St. Helens and Rainier, has been changed from the state of Washington to Oregon by W. J. Clemens, president of the Portland Automobile club, or at least Mr. Clemens would have us draw that inference from an article published yesterday in the Spectator over his name. Referring to the beauties of Oregon, Mr. Clemens says:

"... We can show tourists our resources and wonderful scenery. ... We have Crater lake, which is an indescribable thing of beauty and wonder; we have the snow clad peaks such as Mt. Hood, St. Helens, Rainier and others."

It may be that Mr. Clemens has followed the Biblical injunction and established a faith in the wonders of Oregon "sufficient to move mountains," and if so he will himself probably be rated as one of the northwest's most famous features.

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WELL KNOWN AUTO DEALER SURPRISES HIS FRIENDS



Mr. and Mrs. Ed R. Winchell.

Ed R. Winchell, of the Oregon Motor Car company, local Studebaker distributor, slipped one over on his friends Thursday when he married Miss Margaret Merrill, daughter of Mrs. K. H. Merrill formerly of Spokane, Wash. Mrs. Merrill did not want them to marry just at this time on account of the age of the young couple. Dan Cupid, however, again triumphed and last Thursday presumably started for a ride in one of Mr. Winchell's new six cylinder Studebakers. The ride took them to Oregon City where they secured a marriage license and took the final step to happiness when they got Father Miller of St. Agnes Baby Home, to pronounce them man and wife. Mrs. Winchell is a very attractive brunette who has been very popular among the younger set of Portland. She is also an accomplished musician. Mrs. Winchell's sister is the wife of Lew Rose, one of the best known automobile