

NASH SPRINGS LONG

Truck Has Exceptional Protection Against Jolts.

WEAR AND TEAR LESSENE

J. T. Keena, Manager of Portland Motor Car Company, Explains One of Features of Rear-Driven Nash Truck.

The loads of Nash rear-driven trucks, as well as the working parts of the trucks themselves, are given exceptional good protection against the jolts and jars of the road because the flat springs of the trucks are unusually long and unusually strong, says J. T. Keena, manager of the Portland Motor Car Company, Nash distributor, on the subject of the rear-driven truck.

The front springs of the one-ton Nash truck are 25 1/2 inches long by 2 1/2 inches wide, and are composed of nine leaves. The rear springs of the truck are 52 inches long by 2 1/2 inches wide and have 11 leaves.

The front springs of the Nash two-ton rear-driven truck are 25 1/2 inches long with nine leaves, while the rear springs of this truck are 52 inches long by 2 1/2 inches wide and have 11 leaves.

The best materials are used in Nash spring construction, the master leaf of each spring being of chrome vanadium steel. The other leaves are all of a fine quality high carbon steel.

Maximum Strength Given.

In accordance with the best engineering practice, proved by years of hard truck service, Nash engineers have assured maximum strength by using the flat type of springs.

The flat spring is particularly adapted for use with the Hotchkiss type of drive. In the Hotchkiss drive the front end of the rear spring receives the first shock of power from the motor as the truck starts. When used with the Hotchkiss drive the spring serves two purposes. It is a beam to support the weight of the truck, and it is a column through which to push the truck. As a straight column is always stronger than a curved one, a straight, flat spring used in a truck with the Hotchkiss drive is an added assurance of good truck performance.

With the flat spring as used in Nash trucks, there is no twisting or bending, less deflection per unit of load than with the curved spring. This means there is less bending of the load and consequently less wear on the springs and upon the entire truck.

It is well known to every experienced truck driver that any play of the spring between the spring clips destroys the efficiency of the spring. This portion of the spring of Nash trucks is so well secured as to be perfectly rigid and inert.

Eyes Turned Up.

The spring clips are set well apart and have between them extra strong pressure plates which help to keep the center of the spring from twisting or vibrating that it may almost be considered part of the axle rather than part of the spring. Nash spring clips are very easily tightened from the under side of the axle.

The eyes on Nash springs are turned up. This is the strongest and most logical construction, for in it the leaf immediately below the eye is brought well toward the end so as to reinforce the eye. It is in this position that the thrust on the bolt falls on the leaf itself, the eye doing little more than keeping the bolt in place.

Nash springs have oil cups at both eyes instead of grease cups. This type of spring lubrication has been proven best by years of service on the finest trucks. The spring shackle bolts are hollow to serve as oil reservoirs, and oil is fed to the bushings by wicks in the bolts.

These fine springs are important factors in the good performance of Nash trucks in daily service.

New Car Owners in County.

Temporary police licenses were issued in Portland last week to the following buyers of latest model motor-cars, pending arrival of the official state licenses from Salem. The list is compiled by M. O. Wilkins, publisher of the Automobile Record:

C. A. Payne, 1315 Glen street, Buick.
H. A. Webb, 605 Powell street, Chevrolet.
Harriet H. Goldstein, 495 East Sixteenth North, Chevrolet.
C. E. Alarcon, 270 Brooklyn, Chevrolet.
H. R. Dyer, 1417 East Sixth North, Ford.
C. J. Arnold, 140 East Thirty-first North, Ford.
W. H. McDonald & Co., Yon building, Ford.
T. P. McLane, 482 Rodney avenue, Ford.
C. P. Black, 200 East Thirty-first North, Ford.
C. L. Douglas, 625 Fifty-sixth avenue Southeast, Ford.
George L. Lacy, 1231 Greely street, Ford.
J. G. Thien, 22 Portland boulevard, Ford.
K. Nordstrom, 154 Burnside, Maxwell.
P. G. Lonsdale, 1420 East Everett, Maxwell.
Dr. J. G. Green, 1394 East Thirteenth North, Mitchell.
G. L. Erickson, 1168 Darrage street, Oakland.
Leon Becker, Multnomah Truck & Bag Company, Oldsmobile.
L. L. Johnson, 120 Union avenue North, Oldsmobile.
T. Osmund, 963 Tittabawassee, Paige.
Sam Thompson, 201 1/2 North Jersey, Saxon.
A. G. McGinnis, 401 East Fifty-first North, Saxon.
Frank C. Baker, 171 North Sixth street, Studebaker.
Edward T. Kussia, 92 North Fifth street, Studebaker.
H. C. Long, 412 San Rafael street, Studebaker.
H. S. York, 1010 South Smith avenue, Buick.
J. P. Clark, 699 East Twenty-first North, Chrysler.
A. Brueger, 9112 Woodstock, Chevrolet.
Ray C. Vinton, 215 Sacramento, Chevrolet.
John L. Leach, 4818 Foster road, Dodge.
R. W. Whitcomb, 1212 East Salmon, Dodge.
J. R. Hines, Mallory Hotel, Dodge.
Glen Shepherd, 400 East Thirteenth North, Dodge.
J. E. Sullivan, 774 Kearney, Dodge.
Frederic Dand, 587 Grand avenue, Dodge.
Hosford-Smith Company, 254 Couch street, Dodge.
H. E. R. Hawk, 1087 East Washington, Ford.
W. W. Altman, 400 Webster, Ford.
Herman R. Egan, 740 East Fifty-first North, Ford.
G. Thien, 22 Portland boulevard, Ford.
Homer Pruett, 650 East Fifty-eighth North, Ford.
H. H. Gierack, 5629 Sixty-fourth avenue Southeast, Ford.
Marathon Electric Company, 111 West Park street, Ford.
A. J. Berg, 241 Ivy street, Ford.
H. B. Dyer, 1417 East Sixth North, Ford.
James Dyer, 709 Marshall, Ford.
Gus Hernandez, 26 North Fourth street, Hudson.
Juanita Mae Miles, 483 East Seventeenth North, Hudson.
Robert Hudson, 75 Front street, Hudson.
A. H. Banks, 4115 Fifty-third Southeast, Hudson.
W. T. Scott, 394 North Twenty-first street, Mead.
H. E. Fawcett, 612 East Twelfth North, Mitchell.
George W. Stapleton, Courthouse, Mitchell.
H. E. Kerner, 607 Johnson, Oldsmobile.
Nellie Walton, 1347 East Stark street, Oldsmobile.
Hattie H. Berckett, 2805 Washington, Oldsmobile.
Mrs. F. C. Baker, 794 Glen street, Buick.
Carlo Cervino, 600 Columbia, Chevrolet.
J. R. Hingham, acct. Deerebucker Company, Chevrolet.
F. Darvasheim, 494 East Lincoln, Chevrolet.
Madge Jewell, 1208 East Thirtieth North, Chevrolet.
C. L. Ratcher, 270 Ladd avenue, Dodge.
W. C. Webb, 1005 Union avenue, Dodge.
E. J. Honey, 1084 East Sherman, Ford.

V. M. Crockett, 1638 Princeton, Ford.
F. M. Grobough, 465 Courthouse, Ford.
J. S. Barnes, 306 Clinton, Ford.
M. A. Hollinger, Highland Court, Ford.
Walter P. Beebe, 705 Davis, Ford.
Jaka Racz, 120 Knott street, Ford.
Perry E. White, 487 Seventy-eighth North-east, Ford.
George H. Stenson, 329 Oregon building, Ford.
Alaska Fish Company, 307 East Thirteenth North, Ford.
Acme White Lead & Color Works, 157 Second street, Ford.
Elate Jones, 120 1/2 North Sixteenth street, Franklin.
Maurice Turner, 163 Front street, Mitchell.
The Wolf Hoo Company, 223 Pitcock block, Mitchell.
R. R. Gardner, Twelfth and Taylor, Nash.
Mrs. E. B. Kramer, 753 Hoyt street, Oakland.
T. R. Newman, Amity, Or., Oakland.
Frank H. Gallon, 402 Fremont street, Oldsmobile.
J. L. Leonard, Seaplane, Or., Oldsmobile.
W. A. Dickwood, 1397 Stockton, Oldsmobile.
H. W. Wightman, 265 Third street, Saxon.
R. E. Nordant, 329 East Thirty-fourth street, Buick.

STUDEBAKER BRANCH MANAGER IN PORTLAND.



E. H. McCarty.

E. H. McCarty, manager since last October of the Northwest branch of the Studebaker Corporation of America, manufacturers of Studebaker automobiles, was promoted to that post from assistant manager of the branch here. He came to Portland as assistant manager in January, 1917, from Dallas, Tex., where he had been manager of the vehicle branch of the Studebaker Corporation for a year and a half. Prior to that, however, Mr. McCarty had been stationed in Portland for more than a year as manager of the Studebaker vehicle branch. Mr. McCarty has been with the Studebaker Corporation of America since 1907. He started in at the factory at South Bend, Ind., as office boy, and rose through all the grades to the post of branch manager. The Portland branch has sold many automobiles since he became its manager.

H. H. Sargent, 85 First street, Cadillac.
Jessie M. Fowler, 11 East Nineteenth North, Chevrolet.
W. H. Ross, 504 East Twenty-sixth North, Chevrolet.
R. E. DeArmond, 983 Water street, Chevrolet.

James Heutcher Company, 64 Albina avenue, Chevrolet.
Portland Wool Warehouse Company, 309 Wallace Exchange, Dodge.
R. E. Campbell, 910 East Yamhill, Dodge.
R. G. Gilles, 1139 Twenty-eighth North, Ford.

A. Graves, 203 Fifth street, Hudson.
Harold Jensen, 224 East Sixteenth street, Humble.
F. Jensen, 235 Stanton street, Humble.
R. E. Frey, 208 Carbett building, Liberty.
Leroy Glaser, 514 Alder street, Meis.
R. A. Camp, 740 Welder street, Buick.
R. W. Schmeer, 835 Clinton street, Chevrolet.

Harry C. Nelson, East Sixteenth and Belmont, Chevrolet.
W. A. Greiter, 572 Welder, Chevrolet.
Herman Zwald, Milwaukee, Route 2, Chevrolet.
R. C. Draper, 601 Board of Trade building, Columbia.
F. W. Birkenmeier, Milwaukie, Or., Dodge.
Henry A. Dorsey, Holbrook, Or., Ford.
Gus Kauberg, 209 East Thirty-second street, Ford.

Kellogg Toasted Corn Flakes Company, 204 San Mark apartment, Ford.
Mrs. Annie Vanilorn, R. F. D. 2, box 296, Ford.
Palace Laundry Company, East Tenth and Everett, Ford.
Jacob Bieg, 1319 East Salmon, Ford.
Addie L. Clayton, 882 East Everett, Ford.
R. L. Morton, 4308 Sixty-third street, Ford.
Journal Publishing Company, Portland, Ford.
Pacific States Fire Insurance Company, 202 Title & Trust, Ford.
A. J. Hammon, 6050 East Forty-first street, Ford.
Clarence E. Bruner, 438 East Thirty-first street, Ford.

MOTOR BROKEN IN

G. D. McPhail Puts Car in Good Shape for Owner.

STIFFNESS IS TAKEN OUT

Stutz and Columbia Distributor Operates Motor 24 to 48 Hours With Stream of Cold Water Flowing Through Radiator.

Many persons have wondered, no doubt, as they pass the Auto Rest Garage in Tenth street, near the Public Library, why a car is nearly always standing in front of the garage with the motor carelessly left running while the radiator looks to be leaking like a sieve.

The hood is always removed, leaving the motor exposed to view as it runs. A closer inspection reveals, however, that the radiator is not really leaking but that the drain cocks are wide open and the water running out at the bottom as fast as it comes in through a hose at the radiator cap.

Why should a car be subjected to this peculiar treatment for hours on end? It isn't uncommon at a house in the garage at 3 o'clock in the morning and again at 6 that evening and see the same car in the same place, motor still running, while the water streams through the radiator.

First Aid for New Car.

But C. D. McPhail, proprietor of the Auto Rest Garage and Oregon distributor for the Stutz and Columbia Six automobiles, knows exactly what he is doing and why he is doing it. He is in no danger of being arrested by the Society for the Prevention of Cruelty to Automobiles.

The car through which the water is draining while the motor turns over, you may have noticed, is always a new car. Sometimes it is a Stutz and sometimes a Columbia. But always a new Stutz or a new Columbia.

The reason for all this is that Mr. McPhail is breaking in the motor of the new car so it will run easily and efficiently. Far from abusing the car he is adding to its value. He puts every new Stutz and new Columbia he receives from the factory through this treatment to get the motors in fine running order before he sells the cars. When he sells them the new owners are surprised to find that the motors don't require the usual "breaking in."

Perfect Circulation Obtained.

Mr. McPhail's formula is simple enough and not copyrighted, though it takes more time, patience and gasoline than an automobile dealer is usually ready to give. The motor is set turning at a speed approximately 20 miles an hour. Then a hose bringing running cold water is inserted through the radiator cap and the drain cocks opened.

This gives a perfect circulation of cold water while the motor is running, and insures that in the critical first 100 miles when it is so likely to become overheated and perhaps permanently injured if carelessly used, it will be running at an absolutely even temperature.

A mechanic takes a look at the motor every hour or so and makes any necessary adjustments. Mr. McPhail runs each motor until the stiffness has been taken out of it and it goes as a well broken motor should. This requires from 24 to 48 hours of running and burns up about a tank of gasoline, or from 15 to 20 gallons.

NEW LEXINGTONS ARE ON WAY

Elephant Gray Striking Colors of Minute Man, Six Models.

Isaac Brunn, of the Bruhn Motor Car Company, has received word from the Lexington factory that a consignment of Lexington cars now en route to him will be painted in a striking new color, elephant gray, which has received many commendations for beauty and tastiness in the East. He expects the cars to arrive within the next two weeks. A factory representative of the Lexington, Mr. Wisdom, will be in Portland this coming week.

Win We Must or—

There's no alternative.

There's no half-way conclusion to this war. Germany must be beaten—OR

It isn't necessary to go into details about what that little "or" presages, if Germany isn't beaten.

France knows—Belgium knows—England knows—Russia knows. We know—Lusitania, Tuscania.

To make impossible forever the possibility of the "ors"—we must have more money now—to feed and clothe and arm those men who are doing their part in a fight which is drilling sorrow and anguish into the souls of men.

Are you going to hold back? NO! You are going to come through, to answer the call of your Nation, of the Allies, of humanity itself.

Buy a Liberty Bond TODAY!

Wentworth & Irwin, Inc.

Second and Taylor Sts.

TIRES COME BY CARLOAD

GENERAL CORDS AND FABRICS ARRIVE FOR G. K. CASSIDY.

Head of American Tire & Rubber Company, General Distributor Here, Gets Much-Needed Shipment.

A whole carload of General-cord and fabric tires arrived in Portland early last week from the General factory at Akron, O., for George K. Cassidy, of the American Tire & Rubber Company, distributor here for the General, and once more the world looks bright to Mr. Cassidy.

He had been selling General tires so fast in the last few weeks that it looked for a time as if he would be left without any tires to fill orders with. What made the situation alarming was the difficulty in getting shipments through from the factory. Mr. Cassidy wasn't sure just what was going to happen.

About three weeks ago, in response to several wires urging a speedy shipment, he received a telegram from the factory that a whole carload was on the way to him. He was assured, furthermore, that it would come through without delay.

True to this assurance, it reached Portland from Akron in the remarkably fast time of 17 days. The shipment left the factory on March 14 and Mr. Cassidy was notified last Saturday, March 30, that the car had arrived. It was unloaded and the tires transferred to the American Tire & Rubber Company's quarters at Broadway and Oak streets on Monday, and once more Mr. Cassidy found himself with a complete stock.

The shipment included 1242 cord and fabric casings of all sizes and 1100 General inner tubes, together with a

large consignment of retread bands, patches and the like. Also included in the shipment were 250 of the new General Jumbo oversize tires for Fords. Mr. Cassidy is now handling the General tire exclusively in this territory. He is congratulating himself that he has another carload of the tires ordered and that they will be arriving in a few weeks, for since he took the General distributorship last Fall the demand for that tire has grown to large proportions.

Turn Grease Cups Down. Many car owners habitually neglect

the grease cups ordinarily fitted to the spring shackles for the lubrication of the shackle bolts. Unless these cups are regularly turned down the grease in the passages becomes caked and hardened, preventing the passage of fresh grease to the surfaces needing it. If at any time difficulty is noticed in turning down these cups, they should be removed and the obstructing matter should be carefully cleaned out and then they should be filled with fresh grease.

"See your own state first" is a good motto to put up beside "See America first."

AMAZON SUPER-TIRES

Amazon Supertires are mechanically perfect. Only the choicest materials are used and the tires are built by HAND, by tire builders of long experience.

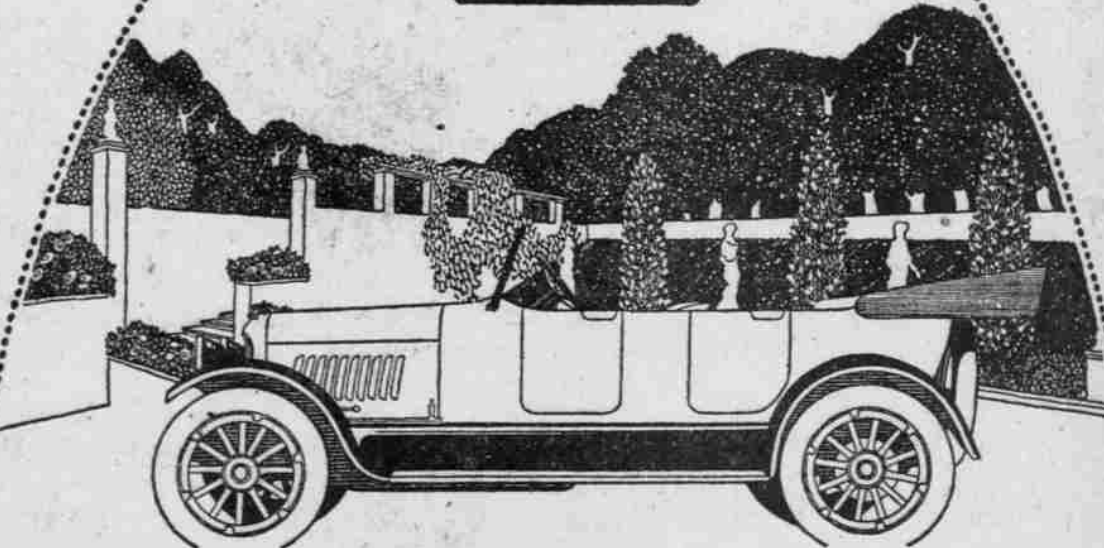
The outstanding feature of Amazon Supertires is the reinforcement for protection against blowouts. This is an extra fabric "breaker strip" built into the side walls of the tire; the place where the "traction wave" is generated and where the tire is continually flexing. This side breaker strip binds the tire together, prevents the side walls from overstretching under excessive load or strain, which would so stretch and weaken the fabric as to loosen the plies, resulting ultimately in a blowout.

We challenge any tire on the market at COST PER MILE.

Dealers wanted.

Amazon Tire & Supply Co.
COR. BROADWAY AND ANKENY
PHONE BROADWAY 486

GRANT SIX



Right In Size, In Cost, In Quality

You don't want a big, heavy, wasteful car these days—both common sense and the spirit of conservation suggest the moderately-sized, powerful but highly economical GRANT SIX.

By skillful designing the length of the GRANT SIX is accentuated so that it appears to be as large a car as many that have a foot more wheelbase. As a matter of fact the GRANT SIX is a roomier and larger car than most cars of comparable price.

Its light weight and the remarkable overhead-valve engine give the GRANT SIX an unusually high ratio of power, yet the thousands of

owners averaging 20 miles to a gallon of gasoline prove its economy.

In maintaining the GRANT SIX standard of economy and low price and in adding to these a greater beauty and a higher degree of mechanical refinement than has ever before been expected in a car like the GRANT SIX, the makers had in mind the conditions of the times.

That is why the GRANT SIX at \$1095 (f.o.b. Cleveland) is selling to people who in other years would spend \$300 to \$500 more—and it is the reason why there will undoubtedly be a serious shortage of GRANT SIXES this year. Make sure of yours now.

Manley Auto Co.
ELEVENTH AND OAK STS., AT BURNSIDE
Portland, Oregon.

GRANT MOTOR CAR CORPORATION
CLEVELAND