

# BEST TREATMENT FOR CARBURETTOR GIVEN BY EXPERT

Chief Engineer of White Motor Car Company Sends Full Description in Reply to Manager Eastman's Query.

"So many inquiries concerning the best method of treatment for a balky carburetor come into our establishment," says C. A. Eastman, Oregon manager for the White Motor Car company, "that I recently wrote to the chief engineer of the factory to send me something comprehensive that I could have printed and hand out complimentary to help relieve the situation."

The essential parts of the communication are as follows:  
"It is really not a difficult proposition if gone at in a businesslike manner. Altering the size of the jet, choke tube, etc., without method, generally results in failure and a return to the original settings, which has probably been arrived at in the same haphazard manner. A good rule is to make only one alteration between each test and never to make an alteration without first having a clear idea as to what effect it will have on the running of the engine."

**Three Essential Parts.**  
"The three essential parts of a carburetor are: a jet supplied with gasoline at a constant level, a choke tube, and the auxiliary air inlet.  
"The choke tube is to offer resistance to the air entering the carburetor as to create the necessary difference in pressure between the gasoline in the float chamber and that in the jet, although a common error is the supposition that the high velocity of the jet past the jet sucks up the gasoline. The gasoline in the float chamber is constantly under the influence of the pressure of the atmosphere, and when the engine is not running the gasoline in the jet is also subjected to the same pressure; hence there is no flow.  
"When the engine is running the throttling back of the air entering the carburetor by means of the choke tube or its equivalent causes the pressure in the jet chamber to be lower than that of the atmosphere; therefore, the atmospheric pressure in the float chamber forces the gasoline through the jet."

**How Flow Is Governed.**  
"The flow is thus governed by the difference in pressure between the inside and outside of the carburetor, and this difference in pressure is governed by the resistance the choke tube offers to the incoming air—not necessarily the size of the choke tube, for holes of certain shapes offer more resistance to the air passing through them than others and may vary as much as 50 per cent for the same area. There is no advantage in making choke tubes of any special shape for the more easy passage of the air, for it only means that the whole will have to be made smaller to obtain the required resistance."

"The mixture does not enter the engine in a steady stream, but is in a rapid state of oscillation set up by the uneven suction of the engine, and these oscillations may vary from 4 to 40 per second with the lowest speed. The speed of the engine, having a varying and peculiar effect on the air and gasoline entering the carburetor. The elasticity of the air prevents it following up the rapid movements of the pistons at high speeds."

**Add to Momentum.**  
"Gasoline is comparatively heavy and non-elastic, and each beat of the engine adds to its momentum, until it issues from the jet in a steady stream. The air, however, has a tendency to decrease proportionately as the speed rises, which results in too rich a mixture if provision be not made for checking this."

"Another method of obtaining an approximately correct mixture is to provide an additional air opening adjustable either by hand or automatically controlled. This opening is generally termed an extra 'air inlet,' but the term is a misnomer, for as an engine only takes in from 50 to 75 per cent of a full charge at high speeds, the proportion of air taken in diminishes as the speed of the engine rises. The real purpose of this additional air intake is to vary and regulate the resistance offered to the air entering the carburetor by increasing or decreasing the area of the intake, and, as pointed out, the resistance offered to the air entering the carburetor governs the pressure tending to force the gasoline through the jet."

**Resistance Lessens.**  
"Therefore, the greater the opening provided for the air to enter the carburetor the less will be the resistance and the smaller the difference in pressure between the inside and the outside of the carburetor; consequently less gasoline will be forced through the jet."  
"Thus, if the choke tube were made adjustable it would answer exactly the same purpose as the auxiliary air opening. In fact, this is the principle adopted in some carburetors. In this case the air is really a choke plate, but its purpose is the same as a choke tube, i. e., to offer resistance to the incoming air."

"The control of the auxiliary air opening by hand has many drawbacks, because at the best only a rough approximation to a correct mixture is possible in this way. It is practically impossible to follow every variation of speed by a corresponding movement of the air lever. Various automatic devices are in use to open the auxiliary air port as the speed of the engine increases."

**NOTES FROM THE AUTOMOBILE WORLD**  
Ballou & Wright have decided to hang up a perpetual trophy cup for a continuous endurance run from The Dalles to Portland via Klamath Falls, Medford and the Willamette valley. The approximate length of this trip will be 800 miles and will make one of the greatest endurance runs in the country as well as conditions of roads, hills, etc., will have to be contended with. The conveyance have made known their intention of being among the first to go after this trophy. Rules, regulations and other details of run have not been formulated as yet, but will be made public as soon as definitely decided upon.

J. P. Baldwin, president of the Martin Shock Absorber company, of Los Angeles, arrived in Portland Friday from San Francisco. Mr. Baldwin came through in a Buick "40" and states the roads in some parts of Oregon are practically impassable on account of rains.

## 1911 DALLAS BAND OF 30 PIECES IN ITS WAR REGALIA



Dallas is proud of this band, which is under leadership of U. S. Grant.

The worst portion is a stretch six miles just south of Roseburg, where new gravel road has been made.

Have you seen Chancellor & Lyons' rubber man? Thomas O'Keefe has just returned from a trip through the eastern and southern parts of the state.

The inclemency of the weather has dampened the ardor of the automobile club's star drivers, H. L. Keats, F. C. Riggs and H. M. Covey, who were scheduled to attempt the establishment of a record for time between Portland and Tillamook today. The contest has been scratched.

H. R. Eckert, of the Rambler Automobile agency of this city, had an interesting run from Eugene to Portland last week with a model 34, 1908, Rambler which was taken in trade for a 1911 model. Though the car has seen much rough usage in southern Oregon it came down the valley without the least trouble, in fact, with but one or two punctures. "Old Faithful Betsy" is to be shipped to San Francisco for a few repairs and repainting, when it will be sold in the second hand market.

The new salesroom of the E-M-F Northwest company, after many, many vexatious delays, has finally been completed in the most attractive form and the full line of E-M-F and Flanders cars will be on view beginning tomorrow.

The Studebaker corporation has always been noted for thoroughness in everything, and one of the latest innovations of the E-M-F Northwest company is the employment of an instructor whose sole duty is the teaching of E-M-F and Flanders purchasers in the handling and care of their cars. Each lesson is limited to one hour, beginning with the handling of controlling levers and steering wheel, and ending with a complete explanation of all parts of the chassis, the location of oil cups, etc.

Everything was in readiness for the signal that would start 25 machines this morning and over a hundred excursionists, on the run to Bayocean that was to be held under the auspices of the Portland Automobile club, but the unfavorable condition of the weather has necessitated postponing the event until later in the month.  
Secretary Potter issued a general invitation to the party and agreed to take as many as would go on the yacht Bayocean. A dozen or more accepted and others have signified their intention of taking a chance on the roads with their machines. Oliver K. Jeffery left Saturday morning, and W. A. Hildge this morning. Five or six cars will line up at Fifth and Morrison streets tomorrow morning at 7 o'clock and attempt the run.

## WOMEN'S CLUBS WILL WORK FOR BETTER LAWS

(Special Dispatch to The Journal.)  
Olympia, Wash., July 1.—The fifteenth annual session of the State Federation of Women's clubs has adjourned after a three days' convention in Olympia. Mrs. R. C. McCredy of Sunnyside, Yakima county, was elected president for the next biennial to succeed Miss Janet Moore. The next convention will be held in Tacoma in June, 1912.  
Among the work of the federation was the adoption of a resolution to work in the next legislature to secure pay for convicts employed in the state penitentiary during their term of imprisonment; to work for the appointment of a board of examiners for the state institutions where there are female inmates, at least two members of the board to be women appointed by the governor. Many subjects of interest to the women and children of the state were discussed. Among the social features was a reception at the executive mansion with Governor and Mrs. M. E. Hay as hosts. There were 250 delegates in attendance.

**Oregon Expert Helps.**  
Corvallis, Or., July 1.—Alfred Vitale, author of a new book on poultry culture entitled "Legioni di Pollicultura," in the introductory pages makes acknowledgment for aid received from Professor James Dryden, head of the poultry department of the Oregon Agricultural college, as well as from other expert authorities of America, England, Germany and other countries. Besides some personal correspondence, the Italian writer secured assistance from Professor Dryden's bulletins on "The Poultry Industry in Oregon," "Incubation Experiments," and "Mortality of Incubation Chicks," published by the Oregon Experiment station, and from two bulletins of illustrated lectures on the Production and Marketing of Eggs and Fowls, published by the United States department of agriculture, and from two bulletins on experiments in breeding and incubation, published by the Utah Agricultural college before he came to Oregon.

**Steel Bridge Rises.**  
(Special Dispatch to The Journal.)  
Madras, Or., July 1.—The 40 ton steel girders of the next piece to be put in place on the Willow creek bridge near town. Work has already begun on the erection of the massive steel towers, and when they are finished, the fourth big span of the bridge will be put in place.

## TRUSTEE TO SETTLE KINNEY'S AFFAIRS

Promoter of Proposed Railways in Hopeless Tangle for Courts to Clear Up.

(Special Dispatch to The Journal.)  
Marshfield, Or., July 1.—The affairs of Major L. B. Kinney and his two hot-air railroads, the Belt Line railway and the Coos Bay Rapid Transit company, which were formerly in the bankruptcy courts, are in the hands of W. J. Rust of this city, who will for two years act as trustee. The trust agreement making possible this arrangement has been filed for record in the office of the county clerk. The judgments against the property are all in the hands of

one attorney and these will be released subject to payment by the trustee. This will make possible the sale of the property so that a clear deed can be given and the expenses and judgments will be paid off by the trustee from the money received from sales. Formerly it was impossible to sell the property as the various judgments against it as a whole made it impossible to give a clear title.

According to the agreement the property, which consists of probably 10,000 lots, must be sold so that it will bring not less than \$500,000. Appraisers will be appointed and prices placed upon each of the lots which will be offered for sale. This arrangement makes possible the moving of a large amount of valuable property on Coos bay which was formerly tied up.  
Major Kinney is reported to be quite ill at his home in North Bend. It is said that he is suffering from a nervous breakdown due to the strain of his business career.

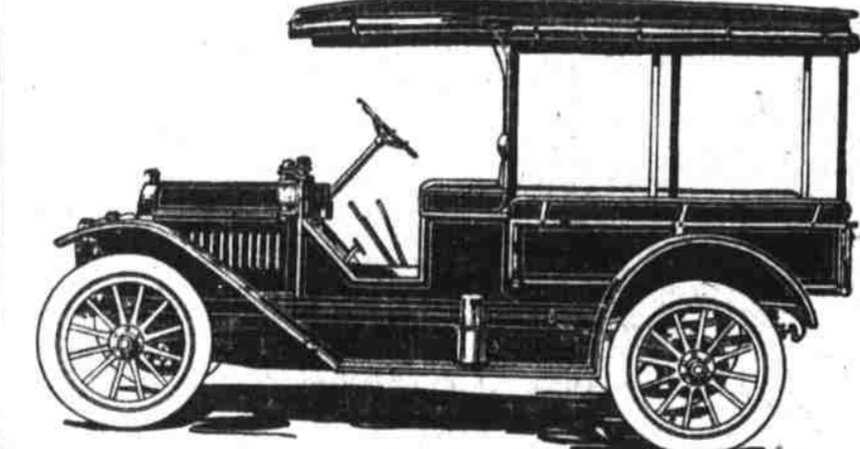
**Postal Bank at Marshfield.**  
(Special Dispatch to The Journal.)  
Marshfield, Or., July 1.—The postal savings bank at the Marshfield post-



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office has been opened. On the first day there were six depositors.

**Open Fish Cannery.**  
(United Press Local Wire.)  
Marshfield, Or., July 1.—Alex Corland of Astoria, who is to be the foreman of the Empire fish cannery, has

arrived at Coos Bay and is making preparations for the salmon canning season. The new cannery which Captain Reynolds will open in Marshfield will also soon be ready for business. With the two plants in operation salmon will be more in demand on Coos Bay than last year.

**Employers Must Furnish Character.**  
In Australia the domestic servants have turned the tables on the employers by forming an association which makes it obligatory on its members to procure a character note of prospective masters and mistresses before agreeing to enter their service.

# For the First Time This Year You Can See the Complete Line of E-M-F "30" and FLANDERS "20" On Our Salesroom Floor

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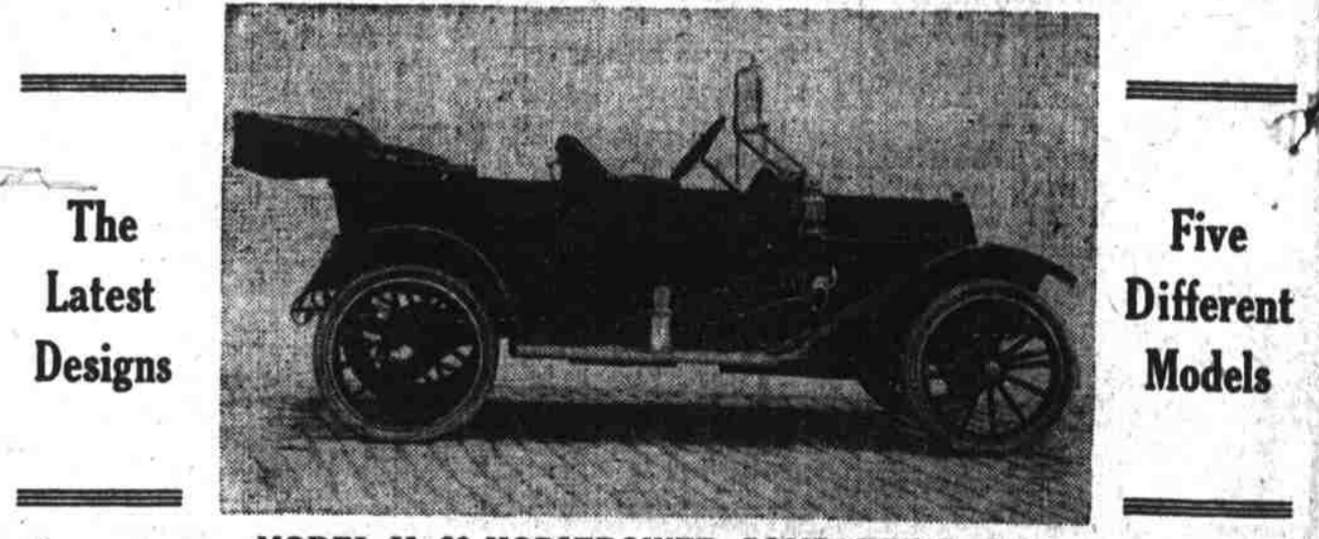
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