

MANY DEVICES USED TO INCREASE POWER

Some Adulterants Declared to Be Worthless.

FUEL SAVING IS CHIEF AIM

Proper Carburetor Adjustment Proves Better Than Compound, Auto Expert Points Out.

"Just why a motorist whose engine will give him all the power he ever needs will wish for more power is one of the unsolvable problems of automobile engineers," declares an authority on the subject.

"The owner who is looking for more power ought to get a racing car, because there are few cars on the market which do not show enough power for even unusual conditions of ordinary driving.

"Many Compounds on Market. There are on the market, however, some dozens of compounds, mostly liquid, which when added to the gasoline are supposed to do all sorts of things.

"A great many manufacturers of these substances recommend that when the substance is used the carburetor should be adjusted to give a leaner mixture, or smaller nozzles installed.

"If the strata, or series of compounds composing the gasoline are changed chemically a certain way, they can be given a higher explosive force individually, so that the maximum impact on the pistons also will be greater and the result will be in evidence in more power from the engine.

"In regard to the carbon question, I think you will find that these fuel adulterants will not remove a deposit already hardened, but in some cases they might prevent depositing of carbon, but that practically the same results might be had by feeding a little oil with the gasoline.

"One thing more about these adulterants, their price. While the maker does not give a money-back guarantee, and where the manufacturer has no recognized standing, I think the motorist is gambling, and sure gambling means ways lose.

ESSEX SHOWN FIRST TIME

NEW CAR MAKES HIT AT AUTO EXHIBITIONS.

C. L. Boss, Oregon Distributor, Calls Attention to Powerful Motor in Hudson Product.

When the curtains are rung up at the different automobile shows of the country which take place in the next few weeks they are expected to usher in the greatest period of prosperity ever experienced by the Nation's third largest industry.

Although it is believed that the attendance will be greater than ever before and the number of exhibitors probably will break all records, only one car, the Essex, will be shown for the first time. This newcomer, which is expected to arouse considerable interest because of the remarkable claims made in its behalf, was only recently

announced, although it has been subjected to every conceivable test during the past two years, and has set up some new records in efficiency, power and durability.

AUTO BUYERS INQUISITIVE

PROSPECTIVE OWNERS WANT TO KNOW ALL ABOUT CAR.

Chandler Dealer Pays Tribute to Intelligence of Big Motor of Motor Prospects.

"The automobile buyer of today is asking new questions about cars," says A. H. Knans, of the Twin States Motor Car Company.

"We have seen this change taking place from the early days, but more especially so since war economies have caused careful study of automobile values. In the early days people bought what they saw in the show windows.

"People today want to know what the car will do more than what it looks like. The motorist has had a peek at the working parts through making minor repairs himself during war times.

"The Chandler Motor Company appreciates this new attitude, for it allows us to explain in detail the many superior points which our engineering department has so carefully worked out to make the Chandler lighter, more economical and easier to operate.

"To be sure, the motorist appreciates beautiful body lines, but this decision does not begin and end there. How many miles to the gallon? the buyer asks. This gives an excellent opportunity to explain why Chandler cars use less gasoline.

"We may explain how the frame of the Chandler has been lightened and simplified, and why this is another economy.

"We are talking to a more intelligent audience these days, and these people can appreciate more fully what our continued efforts mean in economy and convenience.

"I predict that the tendency will be toward a more careful study of cars, and this is decidedly good news, for the more the automobile owner studies the working parts of his car, the more he appreciates the skillful design of the Chandler and the greater satisfaction he feels throughout his entire period of possession of such a car."

Washington County tractor school, conducted at Hillsboro January 16, 17 and 18 was the first school of its kind in the state and probably in the United States, according to the Washington County Farm Bureau and N. J. Jamison, agricultural agent, who assisted the department of farm mechanics of Oregon Agricultural College in conducting the work.

The tractor owners, used in attendance. The tractors used included the Russell, Molino, Cleveland, Allwork, Waterloo, Nelson, Parrett, Fordson, Avery and International Harvester.

The tractors were loaned by Portland and Hillsboro distributors, each of whom sent an expert to assist in the instruction. These men went into the details of adjusting and repairing their tractors, laying emphasis on adjustment of bearings, lubrication, timing valve and magnet. They also called attention to the results of overloading, the cause of trouble in starting and why tractors sometimes fail to carry loads.

At the close of the three-day school County Agent Jamison thanked the local tractor agents and the Portland distributors for their assistance in making the school a success. The students expressed satisfaction with the work and arrangements were made for holding a five-days course at Hillsboro next year.

GENERAL PLANE USE URGED FOR AMERICA

Orville Wright Makes Appeal for Recognition.

SAFE LANDING IMPORTANT

Dean of Flyers Says Machines Will Be Used for Defense, Sport and Transportation.

Immediate and practical use of the airplane in peace time for national defense, for sport, for the transportation of mail and light merchandise and for limited passenger service is urged by Orville Wright in a statement on the future of aeronautics in America, made public through the Manufacturers' Aircraft Association.

Aviation in the United States, it is declared, has reached a most critical stage, and for this reason the inventors and designers, whose genius underlies the great industry which was the decisive factor in winning the war, have prepared a series of statements bespeaking the co-operation of the American public in developing mechanical flight.

Orville Wright, who, with his brother, Wilbur, proved to the world that men could fly, and that Americans, first of all men, had actually flown, believes that the airplane has a commercial future, but before this future develops, he infers, the people must co-operate with the inventors and manufacturers in providing safe landing places. Just as it is wise a ship at sea, so with a machine in flight, navigation is frequently less difficult than making port or landing. Some day in the near future airplanes carrying freight and passengers, it is declared, will traverse many routes, and whether a city is to have the privilege of this new means of transportation, whose possibilities for service are beyond estimation, depends on terminal facilities.

"It is most difficult to foretell all of the future of aviation. No doubt many uses will develop which are now entirely unforeseen. The most immediate and practical uses will be for national defense, for sport, for transportation of mail and light merchandise and for passenger service supplementing special trains.

"A commercial demand will be quickly created when safe landing places for the present high-speed machines are provided at frequent intervals or when a type of machine is developed which can safely land on any ordinary ground.

"I believe that the failure of the airplane for sport and commercial uses up to this time has been entirely due to the lack of facilities for safe landing at any and all times.

"Many of the present military machines can be utilized in mail service between cities where the present territory provides frequent landing places.

"I believe the peace-time uses of the airplane will be in proportion to the safety provided."

IOWA AFTER GOOD HIGHWAYS

Most Elaborate Road Plan in History of State Mapped Out.

DES MOINES, Ia., Jan. 25.—The present session of the Iowa Legislature will see the most determined fight for good roads in Iowa the state has ever known, it is asserted here today. The most elaborate good roads plan ever proposed in Iowa has been mapped out by Representative Nebeker, of Burlington.

Nebeker has already completed the draft of a bill which will be introduced early in the session which would do away with the present State Highway Commission and create a State Highway Department, with headquarters in Des Moines. Present headquarters of the State Commission are at Ames, the seat of the State College.

The highway department would be headed by a commission of three men appointed by the Governor and with powers far outstretching those of the present commission. In addition there would be a highway engineer and assistant highway engineer, with salaries of \$4000 and \$2500 a year, respectively. Salaries of the three commissioners are fixed at \$3500 a year.

SWISS OWN 6140 MOTOR CARS

French Autos Are Most Numerous, American Third.

At the end of 1917 there were 6140 motor vehicles in Switzerland, of which number 4934 were touring cars and 1206 motor lorries. Of the total, 2665 motor cars were of Swiss origin and 2575 were imported vehicles.

STUDEBAKER BUILDS PLANT

NEW FACTORY CONSTRUCTED AT SOUTH BEND.

Capacity Will Be 100,000 Autos Per Annum and Will Double Firm's Output.

If nothing unforeseen intervenes, the construction of the modern new automobile plant, which was started by the Studebaker Corporation at South Bend, Indiana, in 1916, will be completed January 1, 1920, according to information received here by the Oregon Motor Car Company. Considerable progress in the construction of the new plant was accomplished in the execution of orders for military supplies for the Government and, when finished, the new plant will have a capacity of 100,000 cars per annum which with the facilities of the Detroit plant of 60,000 cars per annum, will double the capacity of the corporation, and give it manufacturing advantages unequalled in the country from the standpoint of efficient and economical manufacture.

The new plant at South Bend will be devoted to the production of the new light-four cars, while the Detroit plants will continue the production of six-cylinder cars and automobile parts. The layout and design of the buildings and equipment of the new plant are the concrete result of the experience study of the engineers and manufacturing experts of the corporation, assisted by the engineering staff of James Stewart & Company Inc., of New York City, whose long experience and engineering reputation are world-wide. The buildings are of modern type, concrete and steel construction, and are

grouped to promote the simple, quick and economical movement of work in progress necessary to quantity manufacture and low costs. Adequate and convenient stockrooms are provided for finished products. Every known and proven mechanical device for reducing cost and eliminating handling, such as a standard-gauge railroad with Studebaker equipment, industrial railways, traveling cranes, magnets, power and gravity conveyors and labor-saving machinery are introduced in the best known arrangement. The total area of the buildings will be 2,344,500 square feet, consisting of a machine shop, assembling building, foundry, forge shop, heat treating building, stamping plant, tool room, car test building, storage building and shipping platform.

Another building belonging to the same group is the 4000-H. P. power-

house already completed and equipped with 16 boilers with automatic starters. This noteworthy expansion of Studebaker manufacturing facilities, coming at a time when the whole world is faced with problems of reconstruction, is ample evidence of the corporation's unbounded faith in the future of the automobile industry. It offers most striking proof of the solidity and permanence of this world-famed institution and its determination to keep abreast of the times and maintain the highest possible degree of manufacturing efficiency.

TIRE SALES MANAGER COMING

Miller Rubber Company Man Leaves for Western Trip.

F. C. Millhoff, general sales manager of the Miller Rubber Company, left the factory at Akron, O., January 22 for a swing around the circuit.

He is scheduled to visit Portland and the Northwest Auto Company, distributors of Miller tires in this territory.

Oil Hard on Insulation.

Rubber is very quickly disintegrated by oil and at the same time it has a most unfortunate capillary affinity for the oil. For this reason it is very important to keep oil away from the rubber insulators that are used in connection with the conductors and wires of all circuits of the magnet. Although oil is not a conductor of electricity, it ruins the insulation and the result is the breakdown of the insulation and short circuits.

Overland advertisement featuring an image of a car and the slogan "Let's Go". Text includes: "Under all weather and road conditions, the Overland Model 90 has won its present high reputation as a car that is easy to start, easy to run, and economical to maintain. This reputation is founded on ten years of constant effort to merit the appreciation of the public. The Overland car today is more deserving than ever of that prestige which has grown from the enthusiasm of 600,000 owners." "Willys Overland Pacific Co. Broadway at Davis St. Model Ninety, Five Passenger Touring Car, 1918, f. o. b. Toledo."

MR. TRUCK BUYER:

Are you looking for a sound business investment? You will find it in the GMC TRUCKS Because

GMC Trucks-Are-Built by General Motors Company. The Largest Motor Organization in the World.

Wentworth & Irwin, Inc. Second and Taylor Streets. Advertisement for GMC tires and trucks.

A Complete Service Stock of all Sizes NEW DEPARTMENT Bearings ALSO HYATT AND TIMKEN. Portland Branch 24 N. Broadway Phone Broadway 1799, A-2444

Table of tire prices with columns for size, type, and price. Includes sizes like 35x3 Non-Skid, 30x3 1/2 Plain, etc.