

Technical Service a Help to Owner of Car

"Technical service," as it is understood by the manufacturers of the higher grade motor cars, means keeping the car in highest possible state of efficiency that the wear and tear of constant use will permit.

When a man buys a high grade car he should buy more than so many pounds of steel, wood and aluminum. He guarantees, of course, assures him of satisfactory workmanship, but it is the duty of both manufacturer and dealer to go farther than this.

The owner of a motor car purchases it for the enjoyment he expects to get out of it. Naturally the more satisfactory the car the more satisfied the owner. Perhaps it is true, but it is nevertheless true, that a satisfied owner makes a prosperous manufacturer.

The motor car a few years ago was about as cranky as the leading lady in a first night performance; but today, so great has been the advance

in motor car construction, it is really wonderful the amount of abuse a high grade car will and does stand without a murmur. Well, perhaps, not without a murmur, because lack of lubrication will cause the poor, distressed creature to make its wants known in a manner easily understood by the initiated.

DESIGNING OF AUTOS OPENS UP WIDE FIELD.

To the layman the designing of an automobile may not appear like a very formidable undertaking. He knows there is a motor, transmission, a running gear with wheels and, at first blush, only a competent mechanic seems to be needed to put the various units together.

However, in the designing department of a large automobile company, like the United States Motor company, for instance, the problem of creating a new car has much more important aspects, because here it is understood that before something new is placed on the market no small amount of hard work must be done before the car can assume tangible shape and be placed on the polished

floor of the retailer's showroom.

Formerly it used to be a sort of proud boast of the automobile advertising man to state that his cars were designed and built first and their selling price found out afterward. However, with the modern cost accounting system used in automobile factories, every operation is a factor well known in advance and, much as the advertising man may regret this phase, here at least is an instance where modern factory system has overtaken the cut and dried methods of older days in the automobile industry.

Moderate price cars of real merit usually are not designed by a moderate priced designer, for to design a car of the quality demanded by the public, to be sold at a moderate price, requires designing skill and research facilities of no mean order.

Take the case of two designers, each producing a motor to do certain work. Both turn out an excellent article, both motors work well, deliver the required power with equal reliability. But one costs considerably less to manufacture than the other.

Very often it is found that the man who produced the cheaper of the two motors happened to be a designer well versed in foundry practice; he avoided the use of too many loose pieces and cores in pattern work. Here and there he exhibits deftness in making it particularly easy to get the sand out of the hollow castings.

Core pasting has been reduced to a minimum; blow holes have been arranged in the most convenient places and have been made large enough to permit the gas to escape freely and without endangering the castings by their pressure. The result is that the foundry cost of the motor is reduced and that it is possible to give the benefit of the savings to the buying public.

The point I want to make is that two entire cars, designed under the same conditions as obtained in the production of the two motors which I used as an illustration, may be equal in quality, but the one may be

sold at a lower figure, while the manufacturer of the lower price car is able to make as much profit on his product as the manufacturer of the higher priced vehicle.

To make one part do the work of two or three, to eliminate unnecessary handling, to attain close fits by the use of unerring machinery rather than the uncertain hand of the mechanic, to achieve a maximum of complications—these are the chief aims of the modern high class automobile designer.

Speeding is Costly

Speed is costly. To reverse many many well known axioms, the saving of time is not always a saving of money. Fast travel, whether in trains, motor cars, or in the space of human life, inevitably costs something. Just as speed increases, so the ratio of cost runs up. Why should it be different in the case of the motor car which is run at top speed all the time?

Driving a car at its highest speed all the time involves an expense beyond all proportion to the pleasure obtained, and always results in shortening the life of the car that ordinarily would cost little to maintain.

Most of us know the motorist who tears through the town with wide open throttle, in gleeful realization of the fact that his machine, by being pushed to the very limit of its capabilities, will attain and maintain a speed of a mile a minute or even more.

Bloomington, Ill.—Aplary experts assert the bee population of Illinois was decreased in myriads by the long winter. Many apiaries are destroyed, the bees starving.

It Looks Like a Crime
To separate a boy from a box of Buckle's Arnica Salve. His pimples, boils, scratches, knocks, sprains and bruises demand it, and its quick relief for burns, scalds or cuts is his right. Keep everything healable and does it quick. Unequal for piles. Only 25 cents at all druggists.

Automobile Notes

A municipal garage will be established by the city of Minneapolis, and in it will be stored and maintained all the municipal motor vehicles.

Undertakers have adopted the power wagons readily and generally. In the great humanitarian industry the demands come at all hours, for death waits on no man. Speedy service is better than delayed service, particularly in case of death, and thus the undertaker has to have an adequate wagon on equipment. The undertakers who have taken up the automobile with energy have found that their radius of usefulness has been doubled without enlarging their equipment.

About 40 per cent of the total output of American tire factories may be designated as non-skid tires. In cost they range from 18 to 20 per cent higher than ordinary tires of the same size. Some of the factories make a majority of non-skids and one or two run as high as three-fifths of their

products in this line. But several of the characteristic companies are only taking up this branch of manufacture and in future the indications point to a larger proportion of non-skids all around.

The census report shows over a million and a half more horses in the United States now than 10 years ago, and an increase of over a billion dollars in the value of all the horses. It remains for motor vehicles to displace over 20,000,000 horses in the United States.

It is expected that 10,000 automobiles will be registered in Oregon in 1912. Up to December 1, \$27,241 was collected from fees, and it is believed the number of vehicles registered at present is 6,000. The new numbers have black figures on a green background, instead of yellow and black, as last year.

The only reason that a tire of the non-skid type is not ideal for speed work is that the additional weight of the tread is not regarded as an ad-

vantage in racing. The tire factories unite in stating that a car equipped with non-skid tires requires only enough additional power to counteract the additional weight of the tread. The fact that the surface bearing up on the ground is cut up by the protruberances in the tread is reckoned an advantage in the matter of traction, without imposing any disadvantages in the way of friction. The manufacturers insist that the only difference in speed on a dry road between a car with plain treads and one with non-skids is the almost inappreciable degree resulting from the difference in weight of the respective tire equipment.

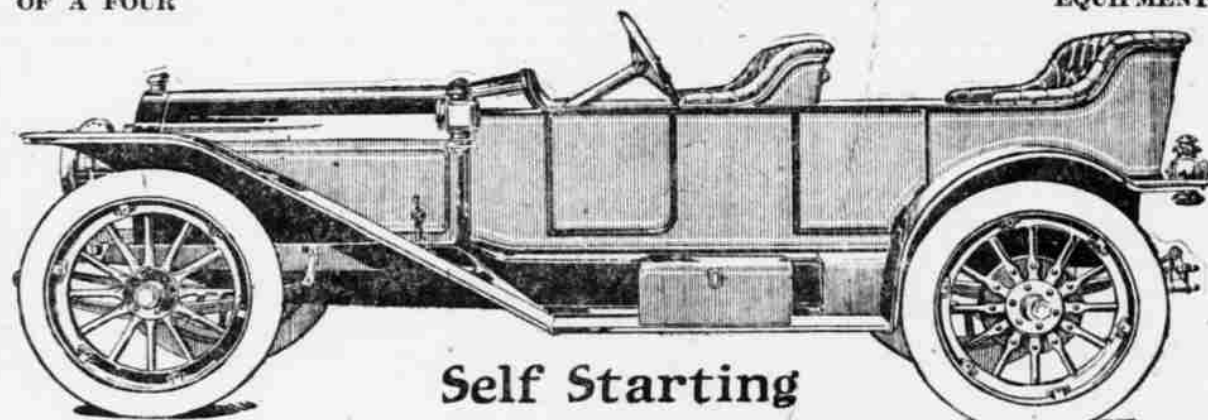
Puts End to Bad Habit
Things never look bright to one with "the blues." Ten to one the trouble is a sluggish liver, filling the system with bilious poison, that Dr. King's New Life Pills would expel. Try them. Let the joy of better feelings end "the blues." Best for stomach, liver and kidneys. 25 cents at all druggists.

All the news all the time—The Argus.

A SIX CYLINDER CAR FOR THE PRICE OF A FOUR

Havers Six-44

PRICE \$1,850 WITH STANDARD EQUIPMENT



Self Starting

BRIEF SPECIFICATIONS

Motor—Six cylinders in pairs, long stroke, unit power plant, three-point suspension 44 horsepower.

Carburetor—Stromberg double jet.
Clutch—Multiple disc.
Rear Axle—Full floating.
Cooling—Thermo syphon.
Wheel base—122 inches.

Wheels—36x4, demountable rims.
Weight—3,100 pounds, fully equipped.
Color—Brewster green, nickel finish.

The day of the six-cylinder car is here. If you have any doubt, ride behind one and you will never consider a four. The Havers "Six-44" is the greatest proposition for the money on the American market for 1912. This car requires no explanation, no apology, no strong talking points on one part or feature to cover up cheapened or weakened construction elsewhere. It is a mechanically perfect car and in beauty of lines and appearance nothing need be said—the car speaks for itself. Study the specifications from stem to stern, look the car over and you will find everything there as represented—and more too. Do not compare this car in material and construction with cars selling for the same price, but with cars costing from \$2,000 to \$4,000. If you can find any superior features or better mechanical ideas of construction, we shall be glad to have you tell us what they are.

The Havers "Six-44" sell on their merits. We want to see and talk with buyers who know automobiles and those who appreciate a finely constructed machine when they see it; also that large class of buyers who are in doubt as to just what to buy.

Come and inspect our car. You will not be pressed to buy, and will be shown every courtesy. We do business on a business principle and do not inject the "personal element" into our transactions. BUY A SIX THIS YEAR AND BE IN STYLE NEXT YEAR

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