WOMEN AUTOISTS FIND REAL FRIEND IN SELF-STARTER

Both as Sporting Aid and Utility It Is Genuine Boon

PREFER TO DRIVE CARS

Now for Electrical Gear Shift, Then Everything Will Be Complete

When the self-starter became a reality instead of a dream, the automobile came into its own in its appeal to the woman driver.

For many years the man of the family could not permit his wife or daughter to drive a car by herself when there loomed up, as a possibility, a stalled engine or an intentional stop which would necessitate an operation in cranking that was strenuous enough to satisfy most men and generally looked upon as a dangerous performance for women.

With the crank a thing of memory except in emergencies and the start of the motor dependent on nothing more difficult than a stamp of the foot or the turn of a switch the whole situation changed.

A woman driving a motor down Chestnut street is no longer a spectacle that causes wonder among the pedestrians. So commonplace is the sight that even the traffic policemen no longer make exceptions for infractions of traffic regulations on the part of women.

IT IS SPORT'S BOON.

While a great many women drive their own automobiles in the city, it is in the suburbs or in touring that women do most of their own "chauffeuring." The sporting instinct in this country is distinctly not confined to men.

American women are keenly interested in sports as are those of no other country. And in spite of the growing universality of the automobile as a convenience, there are many phases of its activities that are essentially sporting propositions. Further, for an American woman at the wheel of her own car, confidant in her skill to handle it under any circumstances, there is a spirit of independence that has an especial appeal for her. Many women who could afford any number of chauffeurs prefer to drive their cars themselves on this account. Away they go in the morning to lunch with a friend, with none of the worry on their minds as to where James is to get his lunch or how he is to earn his wages while she lingers over the teacups.

ALSO A CONVENIENCE.

But to the woman of only moderate means the possibility of driving her own car with a minimum of inconvenience has proved a boon. Perhaps her husband takes care of the car himself, and they have no chauffeur. Heretofore in the larger number of instances, while the man of the family was at his office a perfectly good car was lying idle in the garage all day awaiting his return before it could serve those who had invested in it, what might have been for them, a considerable sum of money. The new conditions have altered all this, and the self-starter did most of it.

But there have been many contributing causes. Detachable rims have had a bearing. One man—or woman—tops have contributed their share. And then, of course, with motor construction on a high plane, engine trouble, the bugbear of all women drivers, is relegated to the realm of remote possibility.

When somebody devises an electrical gear shift that is generally accepted and adopted the happiness of the woman who drives her own car will be complete.

BIG BANKERS BACK THE CHEVROLET FIRM

Contribute Large Sum for the Expansion of the Great Plant

Bankers and great capitalists are cold-blooded business men, who leave sentiment out of their dealings entirely. When they invest money in any project or "back it," as the saying goes, they insist on proof being given that the business has merit and that the article to be manufactured is one that is sure to meet with public favor. And the more they invest the more they must be made to feel that the business is one free from hazardous risks. Therefore, bankers and financiers, in this respect, are the original "men from Missouri" who must be shown.

Therefore, when one of the greatest financial institutions in America backs a manufacturer for a tremendous amount the moneyed men who take such a risk must have carefully and thoroughly investigated the merits of the article to be marketed and been satisfied that it was far above the ordinary. This is what has happened in connection with the expansion of the Chevrolet Motorcar Company, of Flint, Mich. This concern is headed by W. C. Durant, one of the master minds of the automobile trade, a man to whose skill and genius is perhaps due the wonderful success of American automobile manufacturing more than any other man.

The Chevrolet automobile is a car that has won a warm place in the hearts of the American motoring public solely on its merits as a motor vehicle. Stated in a very modest way, the Chevrolet cars have widened their clientage to such an extent that they are in demand in all parts of the country. The demand, in fact, has been so great as to outstrip all efforts of the factory to keep up with the sales and expansion.

REMEDY FOUND FOR KNOCKING MOTOR

Cylinders May Be Slightly Raised by Fibre Gasket

By H. C. BROKAW

Head of New York Y. M. C. A. Auto School.

One of the worst things with which the autoist has to contend mechanically is the accumulation of carbon in the cylinders, clogging the piston rings, filling and short-circuiting the spark plug and causing a knock which is not only annoying, but productive of trouble sooner or later.

There are various reasons for the accumulation of carbon, such as poor gas, defective ignition, insufficient pressure and wrong mixture, but few have assigned as a cause of carbon trouble and knocking a too high cylinder compression.

Too high compression occasions much of the knock ordinarily assigned to other causes. Engines are designed with a certain size compression chamber, and with a chamber of that size to get a certain compression in pounds per square inch, the nearer we can get to the point of pre-ignition without actually reaching pre-ignition the more efficient will the engine be. Pre-ignition, of course, would make a knock.

A good many manufacturers make the compression figure just as high as they dare, with the result that when the carbon forms, the size of the compression chamber is reduced and the pressure is raised to such a degree that it will cause pre-ignition and its resultant knock. When a manufacturer tells you that his engine is proof against carbon and the knocking occasioned thereby, he is probably trying to offset more serious "knocks" the car is receiving from disgruntled users. A friend of mine has a four-cylinder engine in one of the later models of a well-known car of high speed and power. On several occasions we have been out driving in and near the city and after about 125 miles we seemed to always have trouble with knocking in climbing hills. On one trip my friend had the carbon burned out carefully before starting. About the time we reached the end of the journey the engine began to knock on the hills from the collection of carbon. On our return to the city he had the carbon burned out again, and the knock ceased.

I advised him to raise the cylinders one-fourth of an inch by a fibre gasket under each cylinder casting, thus increasing the capacity of the cylinders and naturally lessening the compression. He also had to adjust the water connection and raise the valve push rods, and a few things of that sort. When I last saw him he had run the car 2000 miles since making the change, and it was just beginning to show signs of knocking under severe conditions, indicating that the cylinders needed to have carbon removed.

Where the knock is caused in this way by a slight compression increase it indicates that the manufacturer had put the pressure as high as the engine would stand, and the only way to cure it is by raising the cylinders or lowering the pistons by having shorter rods cast. The gasket I have described is the simplest method.

The chauffeur and the auto owner who learn this remedy for knocking, due to carbon and high compression, will be saved a lot of worry and be enabled to cure the engine's ills, or have it done at the shop. But, son, take it from me, that carbon accumulation will cause any of the high-powered engines to knock and the only way to cure it is to lessen the compression. Also the only simple way to lower the compression is to raise the cylinder with a fibre gasket.