

The Auto Trouble Solver

If you have any problems or wish any information about your automobile, write us and we will be pleased to answer you under this heading in Sunday's paper.

ADDRESS: AUTOMOBILE EDITOR

(Copyright, 1916, by Frederick C. Guerlich)

Q. There was a bad noise in my 1914... car. I have located it in the fifth cylinder and have replaced the spark plug. I am sure the spark is all right, but the noise continues. It doesn't seem to change when I go fast. Please tell me what else to look for.

A. There probably is a bad loss of compression in this cylinder. This may be due to the valves or to the piston rings. Your valves may need grinding or your adjusting nuts may be set too tight. Try pouring a little kerosene into the cylinder at night, as if the rings are gummed and stuck this may free them.

Q. When starting my car, especially if I make a turn, there are a lot of short knocks and under way. This only happens when I start up. The car, which is a 1914, starts up smoothly afterwards. F. K. J.

A. Your trouble is probably due to a combination of a slightly grabbing clutch and a loose torque arm. It is the torque arm you mean. Try washing out the clutch with kerosene, and replacing the bushings in the rear axle housing, through which the large bolt connecting the torque arm to this housing passes. The torque arm is the pressed steel arm which runs from the rear axle to a cross member of the frame just under the front seat.

Q. My 1914... car overheats a lot. Recently I have washed out the radiator with water and also cleaned out the old oil and put in new. It helped a little but not much. What can be the trouble? J. J. A.

A. Your fan belt is probably slipping. It may be that your pump is not working or the water circulation is stopped because of clogged hoses. By taking out the strainer you can see how the water is circulating. Carbon in the cylinders, too rich a mixture, and running too long with spark retarded will also cause overheating.

Q. My car will not start hills as easily as it used to. I must start a first start.

A. You probably have lost of compression. Grinding your valves will probably cause the car to give its former power.

Q. I notice that not only is it more powerful at night than in the day time, but the motor in the air of the engine and has been ever tried having little water into the cylinders. F. K. J.

A. Many experiments have been made with attachments which will let moisture get into the cylinders, with the result that it is generally concluded that the moisture in the air is not the cause of the extra power. This is more likely due to the cooler air cooling the pistons slightly so that they fit tighter in the cylinders.

Q. I have a 1914... car which I try to pull a hill with the spark fully retarded. I thought I could adjust the spark at the end of the steering column, but there is no place to adjust it there. The car has been running two years but has never been in a shop. Will you kindly advise me what to do? Thinking you in advance.

A. Your engine is probably badly carbonized. I would have this carbon burned out by having good mechanic. You may also have a lower bearing. Bearings when running in grease are required to please see them.

Q. During the last two months when I start a hill slowly there is a sound like a hammer hitting iron in my engine. I have a 1914... car of 1914 make and it works good.

A. Your engine is probably carbureted. If you do not extend your spark when the car slows down on a hill, you will get a knock. You may not have noticed this before, because your valve pin bushing and bearings were probably tighter than they are now.

Q. I'm using a 1914... 120 cylinder car which is giving considerable trouble. I had the battery tested at the garage with the hydrometer and found it defective. The solution I suppose a suitable fluid and after recharging the battery I got very good lights and could use the starter, but that didn't last long after I started a while. Now I can get only dull lights unless using the engine and shortly after the car would stop, but by turning off the lights it would continue to go. Dr. W. J.

A. From the fact that your battery discharged while the car was idle, I feel certain that you have a short circuit, either in the wiring or in the battery itself, or that your automatic cut out is not working. The automatic cut out is a magnetically operated device which disconnects the battery and generator when the engine is not running or is running slowly. Your instruction book will show you where this is located, I believe. The points should be open when engine is idle and closed when traveling fast to cover your wires correctly and see if any are disconnected, or have the insulation worn off. Once a week you should fill your battery with DISTILLED WATER.

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riding above a set point, whereas with the thermostat at the bottom it only controls the temperature, at which the water system also factors in. The water system also factors in the fact that it gets in passing through the jacket deposits upon an temperature and was not a fixed quantity. It could weather through and found the water warming it might not see with the top position for the thermostat.

STANDARD TRAFFIC CODE IS PREPARED
Safety First Federations Issue Recommendations; a Year's Work.

As the result of more than a year's research work and statistical compilation, the Safety First Federation of America is now issuing what is termed a standard code of traffic regulations among state and municipal officials having under their jurisdiction the regulation of street

traffic. Many of the features incorporated in the New Jersey traffic law form a part of the standard code. In fact, the New Jersey law—the first ever adopted by a state—forms the basis upon which the code has been founded. The federation believes that its activity will be of much help to the authorities in many cities who have been slow to recognize the importance of the safety first movement, and will bring to them the experience of more progressive municipalities.

The code is comprehensive in its scope, covering even the smallest details. It deals with the carrying of a license, with the regulation of lights, it prohibits the use of whistles, deals with unnecessary noise and smoke and defines the course to be taken in case of accident.

Its clauses are conservative. For instance, in reference to speed it merely states that "no person shall operate a motor vehicle in a reckless or careless manner and shall have proper regard for the width, traffic and use

of the thoroughfare, so as not to endanger the life or limb or the property of any person. No vehicle shall cross any street or make any turn at a rate of speed exceeding one-half of the legal rate of speed."

The code includes instructions about the right-of-way, instructions to pedestrians, how to drive slow-moving vehicles, the distance a vehicle must keep from a street car and how to turn, stop and back with no danger to traffic. It includes regulations in parks, deals with safety zones and parking, and covers rules not only for motorists, but for bicycles, street car drivers, horsemen and drivers of other vehicles.

A uniform code of signals to be adopted by local legislative bodies for use in the regulation of traffic has also been recommended. This standard code of traffic signals and a uniform system of signs, symbols and the like will be presented for approval at the second annual convention of the federation, to be held in Baltimore December 7, 8 and 9.—Bullington News.

She Knew the Game.
Mrs. Willis at the ball game, as the pitcher and catcher hold a conference. "What are you talking about?" "Mr. Willis—About what to throw to the next batter." "Yes, sir." "But they aren't allowed to throw anything to him except the ball, are they?"—"Puck."

Positions Filled.
"Aren't you the boy who was here a week ago looking for a position?" "Yes, sir." "I thought so. And didn't I tell you then that I wanted an older boy?" "Yes, sir; that's why I'm here now."—Brooklyn Citizen.

Excusable Mistake.
The Visitor—"Hark! some one is playing a delightful lot of Wagner." The Host—"Oh! that's the janitor putting coal on the fire."—Punch Bowl.

The only man she knew who lipped called her up on the phone and said: "Oh! that's you, Ruth. Well, guess who's third this?"—Scrivener's Magazine.

COLORADO CARS SHOW BIG GAIN
Increase Over Same Period of 1915 Is 14,405 Automobiles.

The growth of the motor car in Colorado in the Rocky mountain region is reflected by a gain of 14,405 cars or 26 per cent for the first half of 1916 over the same period last year.

Returns from the 63 counties show a total registration of 39,231 cars for the six months, as against 21,826 for the first half of 1915, and 28,254 for the entire year. This is a gain of 7,277 cars, or 25 per cent, over last year's total. Secretary of State Hamer estimates that 1916 will pass the 40,000 mark, marking an increase of more than 20 per cent over last year, and that it has already reached 40,000, which is one car for every twenty of Colorado's 800,000 persons.

These estimates are based on partial returns for July and August, 1916, and on the continued heavy sales reported by state distributors of cars.

An increase of 25 per cent or more was allowed for when the 1916 tags were all tied to the different counties, and practically every county has moved for an extra supply of tags, by making it necessary for 1916 tags to be in addition to the original order of 25,000. The first order for 1917 will total 50,000.

The allotment of tags is a problem, as the system of distribution gives each county a continuous series of blocks of numbers for the convenience of license inspection, identification of cars lost, stolen or involved in accidents, and so on, and at the same time enables them to be used to avoid over-issuing. The gain has been so rapid since the state motor vehicle license went into effect three years ago, when there were included as many cars as now, that every year has seen a shortage of tags.

Registration has been so heavy that your returns from the counties are slow in coming. The small county, San Miguel, made its report exceed that of last year's original seventy tags and would need fifty more. Only one county has no cars at all. That is Huerfano, which is mountainous and largely settled, and an irregular report saw two residents of Dolores county bought cars and registered in an adjoining county, so Dolores has no tags.

Revenue of \$120,000 for 1915.
Last year's total revenue was \$120,000, receipts for 1916 will be between \$150,000 and \$175,000, it is expected. The license fees are \$2.50, \$5 and \$10 for up to 20 horsepower, 21 to 40 and above 40 respectively. As the tax, which pays only \$2.50, represents 41 per cent of the total this year as against 34 per cent for the first half of last year, it will be seen that the gain in receipts can hardly keep pace with the gain in the number of cars registered. The revenue is divided equally between state and county road funds, each county getting half the amount it collects.

The Ford is first in number with 15,327, overlaid second with 2,822, and the Buick third with 2,369. The Buick was second a year ago with a lead of 64 cars over the Chevrolet. The Maxwell has 1,761, while the Sundeckler has 1,820.—Motor Age.

The Moon's Influence.
Fetters understand the light of the sun is 600,000 times greater than that of the moon.

Fetters—All the same, it takes the moon to warn a fellow up to a proposal.—Vankers Stockman.

Announcement
We are now distributors for Saxon cars in eastern Oklahoma, having a completely equipped service station we are ready to take care of both present and prospective owners of Saxon cars.



—at less than \$1000 where is the car comparable to Saxon "Six"?

Answer that question for yourself. Note the various cars that sell for a price near that of Saxon "Six."

Recall that but a brief twelve months past all these cars claimed equality with Saxon "Six."

Recall how divided was the public mind as to their relative merit. And see how changed the situation is today. Now that facts have cleared the air of phrases.

See how settled the public mind is upon the superiority of one car. And that car is Saxon "Six."

SAXON STRENGTH, SAXON ECONOMY, SAXON SERVICE.

These have been impressed indelibly upon the minds of motor car buyers. Not by adjectives. But by actions. By incomparable performance.

Only recently 206 Saxon "Sixes" traveled 61,800 miles without stopping. Each car covered 300 miles.

Their drivers were not trained pilots but Saxon dealers. The winner averaged 34 2/3 miles per gallon of gasoline. The grand average for the 206 Saxon "Sixes" was 23.5 miles per gallon.

This result is remarkable in itself. But it becomes even more noteworthy when you consider that these were not cars "turned to the minute" for a gasoline test on a measured gallon of gas.

They were standard Saxon "Sixes." Just such cars as you see on the street daily. Nor was the test conducted over a specially selected piece of roadway, all conditions ideal.

Only one-quarter of the total mileage was over city streets. The remainder—46,350 miles—led through mud and deep sand, through rocky canyons, over hills and mountains and average country roads.

However, this average of 23.5 miles per gallon of gasoline is not the only significant fact established by this 61,800-mile run.

For there is the fact that not a single one of these 206 motors stopped running once.

There is the fact that no mechanical trouble occurred. There is the fact of the extraordinary stability and strength of Saxon "Six" that this run establishes.

A few weeks ago 38 Saxon "Sixes" raced in relay from New York to Frisco in 6 days, 18 hours and 10 minutes.

On the floor of our showroom you will find Saxon "Sixes" identical in every detail with these cars that averaged 23.5 miles per gallon of gasoline during 300 miles of non-stop running—that sped from New York to Frisco in 6 days, 18 hours and 10 minutes.

We urge you to see them at once. You will find that they embody, in superlative degree, everything that goes to make a motor car completely satisfactory.

Note these Saxon features:—light weight, high-speed, six-cylinder motor of Saxon design manufactured to Saxon specifications by the Continental Motor Company; Timken axles; Timken bearings throughout chassis; Rayfield carburetor; two-unit starting and lighting system by Wagner; all vanadium springs; Saxon cantilever type; dry plate clutch; silent helical bevel drive gear; roomy body handomely finished; demountable rims, one-man top, quick acting curtains, and every other detail making for complete equipment.

Saxon "Six" is \$1150, c. o. b. Detroit.

Randel Motor Co.
(INCORPORATED)

615 SOUTH MAIN ST. PHONE 409

AUTOMATIC CONTROL OF INTERNAL ENGINE

A Statement Made by an Authority on This Subject Before S. A. P.

That automatic control of the internal temperature of an engine car is not only a necessity, but a luxury, was the opinion of J. H. Kettering, who gave a most interesting lecture at the annual meeting of the Society of Automotive Engineers last week. In this opinion all those who are interested in automobiles should be interested.

Kettering pointed out that we just only learn to touch the radiator when we consider the temperature of water in the cooling system. That the temperature of the manifold and of the oil also should be considered. He suggested that there was probably a bad temperature for the cylinder walls, another for the intake manifold, another for the thermostat, and another yet another for the fan belt and a still another for the oil in the lubricating oil.

A point which needs particularly careful consideration is that of the heavy gasoline of today is the danger of distributor taking place within the cylinder of the engine in cold weather. The friction of the gas in the cylinder may be great without causing any harm. This leaves a sort of heavy coating in the cylinder which has a destructive action on the oil. This effect is always noticeable in many instances with a small quantity of gasoline.

These points from the difficulty of getting the thermostat right for oil, and the danger of distributor taking place within the cylinder of the engine in cold weather. The friction of the gas in the cylinder may be great without causing any harm. This leaves a sort of heavy coating in the cylinder which has a destructive action on the oil. This effect is always noticeable in many instances with a small quantity of gasoline.

When engine is to be started in cold weather, it is not only the temperature of the oil, but the temperature of the manifold and of the cylinder walls, and the temperature of the fan belt and a still another for the oil in the lubricating oil.

Discussion Is Lively.
A lively discussion followed the lecture, every speaker agreeing with the opinion of J. H. Kettering, vice president of the Ford Motor Co., who had been the first to suggest automatic control for the cooling water with great success and had, in fact, been the first to suggest automatic control for the thermostat.

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Maxwell Service SERVES

Maxwell has put a real meaning into the word "Service."

Simply by requiring every Maxwell dealer to carry a full supply of Maxwell parts—so that he can replace any damaged or worn part at once, without waiting for parts to be shipped from the factory.

If you are a Maxwell owner your car will always be in running order because our dealer—any Maxwell dealer—can give you real and immediate service. If he couldn't, he wouldn't be a Maxwell dealer.

Not more than one or two automobile builders in the country can give you service that compares with Maxwell Service.

This is a vital point. Investigate it fully before buying your car.

Maxwell 1916 Touring Car \$295. Cabriolet \$365. Truck Car 1915. Sedan 1915. Fully equipped, including electric starter and lights. All prices f. o. b. Detroit.

Purdy Motor Co. Maxwell Distributors, 111-115 115 S. Denver, Phone 1136, Tulsa

Spaulding Winney Co. Sapulpa, Skiatook Garage, Skiatook.

H. A. Heckard, Drumright.