

# Expert Advice For the Automobile Owner

## Queries and Replies Covering Matters of Importance to the Man Who Runs a Car

My car is hard to start in cold weather. Would increasing the number of dry batteries approximate a high tension magneto, and, again, would increasing the number of batteries injure the coil?

No. This would injure the coil by allowing an excessive current to flow through it. If your present cells are in good condition they should furnish a satisfactory spark for easy starting. The spark is probably all right, but the real difficulty is due to the gasoline not vaporizing. To overcome this trouble you might use a lighter grade of gasoline, such as you can probably obtain at your drug store. Ether might also be used. Either of these fuels may be injected through the priming cups or introduced through a special priming device. There are several devices on the market which facilitate starting on cold mornings by warming the fuel. One of these might be a good remedy for your trouble. You might also use a radiator heater to keep the motor warm at night.

Do you recommend the use of wood alcohol as anti-carbon treatment? When I used it the car smoked, but seemed to run better.

Wood alcohol should be satisfactory. Four ounces should be enough for each cylinder. After injection of the liquid to all cylinders the motor should be cranked a few times to distribute the alcohol to all parts of the combustion chambers.

What is the difference between a torque arm and a radius rod?

Radius rods are used in motorcars to maintain the rear axle in a fixed position with relation to the other driving members. Radius rods are used in pairs, one on each side of the axle. A torque arm is a rod or beam attached at one end to the rear axle and at the other to a frame cross member. The function of the torque member is to prevent the rear axle from twisting or bending to rotate because of the forces coming upon it in driving and braking.

Why does a motor smoke when it starts for about five or ten minutes till it gets warm and then stops smoking?

This is probably due to metal expansion. When cold the piston and rings are loose and oil can get to the combustion chamber, but when hot there is less cylinder clearance and little, if any, oil gets to the chamber to be burned.

What final ratio is considered best on cars with 33 by 4 tires, and what speed should be obtained from this ratio?

The size of the tires is not the all important factor in determining the proper gear ratio, as there are many other points to be considered, such as the most efficient speed of the motor, the weight of the car, etc. These may so alter the proper gear ratio that the mere size of the tires becomes insignificant in determining the final reduction. With this in view, it is impossible to state that any given final reduction is best for a given tire size.

Some engines stop almost immediately after the switch is cut off, while others seem to lose their momentum gradually. Why is this?

When the switch is cut off on an engine it is merely a matter of bringing to rest the moving parts, which are no longer propelled by the explosion of the gases in the combustion chamber. Only one influence is probably great enough to be considered as the opposing factor to the movement of the motor, and this is the internal friction. When this has exerted its influence to such an extent that the motor is unable to turn itself over against the compression of the cylinders it will come to rest. The compression is not an opposing factor unless the momentum is insufficient to carry the motor over top center, because when it is carried over top center the expansion of the compressed air gives up practically all the power which was utilized in compressing it. If the compression is exceptionally heavy then the speed does not have to be reduced as far as it would if only a light compression were used before the engine will be unable to turn itself over the dead point. With these considerations it will be easily seen that a motor with tight bearings, tight piston rings and high compression will come to rest much quicker than one which has the opposite conditions. Of course a gas tight motor is more efficient under running conditions than one which is too free.

My car misfires under load, but if I take a hill running fast it will not misfire. I have cleaned and adjusted the breaker points, also the spark plugs. What can be the matter?

This may be caused by poor carburetor adjustment for low and intermediate; also by some derangement in the igniting system whereby there is an insufficient spark sent to the plugs at low engine speeds. It is possible that you adjusted the intertrapper points improperly or that you set the plug gaps too wide. Leaks about the cylinder plugs and inlet manifold may cause the trouble.

What is the objection found in transmission gears built in and receiving the same oil as the cylinders? Is there any great objection to this oil as used in crank case as a lubricant to the transmission gears?

The main objection to this is that the lubricant which is suitable for cylinders is not suitable for gears. Gears require a viscous lubricant, which clings to the surface and provides a substantial film between the teeth. The gear wheel must be able to carry the oil around with it. In the cylinder the oil requirements are entirely different. The difficulties of high temperatures must be met with, and since an entirely different set of conditions are to be faced the oil will naturally have to be different if it is to provide ideal lubrication. Very often makers in the past have connected the gear set to the crank case, so that the oil in the latter worked its way to the former, and vice versa. These makers have gradually abandoned the method, however, as the oil from the crank case was not considered to be ideal for the gear set. Another great objection to the use of the interconnected gear set and crank case is that the car user would often put heavy oil in the gear box, with the result that it would work its way into the crank case and cause carbonization of the cylinders.

Is it necessary for the front wheels of a car to toe in, and, if so, how much? It is customary to give the front wheels one-quarter inch foregather to facilitate steering.

What is it that causes the tapping sound in a motor when the spark is advanced too far, when motor is laboring? Why is it that this happens when a motor is new and the pistons, wrist pins and rings are absolutely tight and perfect fitting?

Very often with the spark advanced too far the pound given by the motor is simply the impact of the working parts transmitted to the volume of exploding gas in the combustion chamber. This is communicated through out the motor, and the resonant qualities of the metal in the motor permit a pounding effect to ensue. With pistons that are in any way loose at the bottom the reversed power causes a slap, but even without the piston slap the pounding noise would be in evidence.

With the present tendency of putting the piston rings at the top and none at the bottom, there is sometimes a slap caused by the oscillating of the piston about one of the upper rings, brought on due to the reversal of power to preignition. It must be remembered, however, that even with the best fitting motors a charge preignition will find any place where there is backlash, as the reaction even carries through the timing gears, valve mechanism, etc.

Is it practical to bore out and put in new pistons?

It is advisable when the cylinders are not worn too eccentric, and only a small amount of metal need be removed. Perhaps .002 to .005 inch would be sufficient.

One of the coils on my battery box buzzes all the time. I have looked for a short circuit, but am not able to find it. What is the trouble?

Probably a small strand of wire is making contact where attached to the timer or the insulation on the timer at that point is broken. If the timer is old you should get a new one, as the trouble may be inside and due to excessive wear.

My car travels well up to a speed of twenty miles per hour, but when the speed is increased the water boils so fast that the radiator is soon emptied and consequently I have the usual trouble which accompanies a heated engine. The pump is in good condition, new heavy hose all around. The radiator was opened up and all the tubes were free, and also the tanks are in good shape. Circulation seems to be good. The cylinders have recently been burned out with oxygen. What can be the trouble?

It would seem that your trouble must result from one of two causes—first, an improper setting of the spark, which can be corrected by advancing the magneto, or, second, by a collapsing hose connection between the radiator and the water pump, which at twenty miles per hour or over becomes closed, due to the suction of the pump. This latter cause seems to be the most probable, and can be remedied by winding a piece of wire into the shape of a coil spring and inserting it tightly into the tube, thus holding the wall against collapsing under the suction of the pump.

Would running a small stream of water through the engine while it is hot and running, pouring it slowly into the petcock at the fork of the intake manifold, loosen and blow out carbon in the cylinders?

The use of water in this way hardly would loosen the carbon. Kerosene allowed to remain in the cylinders for about twelve hours would be better. For the loosening process requires that the oil in the carbon be dissolved.



### FOR WINTER DINNERS.

**POT ROAST AND SPAGHETTI.**—To four pounds or a little less of pot roast (beef) add one can tomatoes or two pounds fresh ones, one small can red peppers, three medium sized onions, two level tablespoons sugar, one tablespoonful pepper, two tablespoonfuls salt and a stick of celery, or a little celery salt, omitting some of the common salt. Bake in oven about three hours; when done add two well cooked cupfuls of spaghetti, measured before cooked.

**Veal and Asparagus.**—Pour a cream sauce made of a cupful of cream or milk thickened with a tablespoonful of butter and flour, around a roast of veal and edge with asparagus tips, canned.

**Oysters and Bacon.**—For this dish choose very small oysters and allow eight to a person. Make strips of toast and keep hot in the oven; cook quickly in a very hot frying pan some strips of delicate thin bacon without rind, and when brown lay one on each strip of toast; put the oysters in the frying pan with the bacon fat which remains in it and cook until plump; lay on the strips of toast; garnish with slices of lemon and parsley.

**Spareribs Stuffed With Apples.**—Get two strips of spareribs the same size. Salt and pepper to taste. Cut enough sour apples in quarters (wash, but do not peel) to fill spareribs. Sew up both sides so apples can't fall out. Put in roasting pan and add two sliced onions, two bay leaves and eight whole allspice. Add water same as for other roasts and bake until done. Thicken gravy with a little flour. Gravy and meat are fine, the apples flavoring both.

**Rump Steak, Stuffed.**—Two pounds rump steak, two ounces of suet, three ounces of breadcrumbs, six olives, one dessertspoonful of chopped parsley, pepper and salt, two eggs. Peel and chop the olives small; chop the suet; put into a basin with the crumbs, parsley, olives, suet, pepper and salt; mix well with the eggs; spread the mixture on the steak, roll and the securely; place in a greased paper and roast about three-quarters of an hour.

*Anna Thompson*



### IRONING DAY MENU.

**TUESDAY—BREAKFAST.**  
Apple Sauce, Cereal,  
Poached Eggs on Toast, Coffee.

**LUNCHEON.**  
Pigs in Blanket,  
Lettuce Salad, Graham Bread,  
Rice With Cream, Tea.

**DINNER.**  
Cold Roast Pork, Cranberry Jelly,  
Sweet Potatoes,  
Mashed Turnip, Hot Gingerbread,  
Whipped Cream, Coffee.

### The Salad Bowl.

**SOMERSET SALAD.**—Mix one and one-half cupfuls of cold cooked fowl cut in cubes, a cupful of chopped English walnut meats, one half cupful of French peas and a cupful of celery washed, scraped and cut in small pieces. Moisten with dressing and garnish with strips of canned red pepper, arranged ribbon fashion.

**Shrimp Salad.**—A can of shrimp, three boiled eggs, boiled thirty minutes. Slice eggs, mix with shrimp; then turn over the whole a dressing made of an egg, a dessertspoonful cornstarch, half teaspoonful salt, pinch red pepper, a tablespoonful butter. Mix quickly and well and stir all into half a cupful of hot vinegar. When cold mix with a cupful of cold cream.

**Apple and Celery Salad.**—Slice the tops from four large apples and scoop out the pulp. Mix this with a cupful of crisp celery cut into small bits and broken English walnut meats. Then add mayonnaise dressing made without mustard. Fill the apple shells with this mixture, put on the tops and serve on crisp lettuce leaves.

**Oyster Salad.**—A large can oysters, six soda crackers, six stalks of celery. Roll crackers fine, chop oysters, leaving two or three for garnishing. Chop white part of celery and two hard boiled eggs. Mix well, adding salt and pepper. For dressing cook two well beaten eggs in a cupful vinegar, add a piece of butter size of a walnut and flavor with liquid from oysters. Pour over the oysters and garnish with sliced hard boiled eggs.

**Tuna Fish Salad.**—Materials—A tablespoonful gelatin, one-quarter cupful water, three-quarters cupful cooked salad dressing, a cupful flaked tuna fish, one-half cupful chopped celery, one-half green pepper shredded fine, two tablespoonfuls chopped olives, one-quarter teaspoonful paprika, one-half teaspoonful salt, two teaspoonfuls vinegar. Utensils—Two bowls, knife, spoon. Directions—Soak gelatin in two tablespoonfuls cold water ten minutes, then dissolve in two tablespoonfuls hot water. If necessary set cupful in hot water. Add dissolved gelatin to salad dressing. When it begins to thicken add fish, celery, pepper, olives and seasonings. Mold and chill. Remove from mold and garnish with one or two lettuce leaves, pickles, celery tips and rings of pimientos.

*Anna Thompson*

### THE GOOD WIFE.

**A Treasure, Holding In Her Hands the Destiny of Posterity.**

When a woman enters the marriage relation her sphere of influence is at once extended, and her horizon is no longer bounded by the people and circumstances of the moment.

She is building for posterity. In the joy and thoughtfulness which characterize her mind in the new relation there is a prophecy of unborn generations. Her life is to color other lives; her aspirations are to fix to a great extent the position and future of husband and family.

If she is cultured, pure and refined these qualities will characterize the home which she creates. The higher the degree of her culture, her purity, her refinement, the more will these qualities characterize the home of which she is the center.

The personality that a woman takes with her in her marriage is her real dowry. If her dowry can be reckoned in numerals only, no matter how many they be, wrecked indeed will be her husband, impoverished her children.

But if she possesses industry, gentleness, self abnegation, purity and intelligence, combined with capability, she is in herself a treasure of treasures.—New York Weekly.

### FAMOUS PLACE NAMES.

**Why Should They Not Be Called Alike All Over the World?**

It is perhaps too much to expect that a universal meridian or universal time will ever be established, still less that we shall have universal money or a universal secondary language. All these things might be brought about if we could only get rid of our prejudices.

It is not, however, too much to hope that the present confusion of place names should be got rid of. Why the English and the French should persistently describe as Cologne and Mayence, cities which their own inhabitants never call anything but Kola and Mainz, it is difficult to understand, and there is certainly no excuse for our pronouncing the name of the Bavarian capital as "Munick," as if in scorn of the dwellers therein, who call it as nearly as English letters will reproduce the sound, "Minchen." Why should an Italian gratuitously misname London "Londra"? We really ought to know how our own capital should be called.

As to Polish place names, also Przemysl and the like, only an international commission could decide.—London Globe.

### A Strict Dramatic Censor.

Vienna once possessed the strictest dramatic censor ever known in the person of Franz Hoegelin, who held that post in the Austrian capital at the beginning of the last century. Hoegelin published a manual for the guidance of censors. "A pair of lovers should never be allowed to appear on the stage alone. They must always be accompanied by a third person of mature years." Marriages out of one's class were also strictly forbidden by Hoegelin on the stage, and he quotes an instance of a play which he refused to pass because the author made the hero, Count Valdemar, marry a gardener's daughter. "Such misalliances have unfortunately been known to occur in real life, but that is no reason why they should be allowed on the stage," he said.

### The Hippopotamus.

In spite of its clumsy build the hippopotamus can trot fast. That is why he is called "river horse." The hippo's feet are kept far apart by the wide body and make paths with a ridge down the middle, recognizable at once. Hippos swim very well, but go at their greatest speed when they can gallop along the bottom in shallow water. They can stay under water a long time, and when they come to the surface they send little jets of spray from their nostrils. The cow is devoted to the calf. The young one stands on her back as the mother swims.

### Cyrus and the Persians.

The Persians of the time of Cyrus were Zoroastrians. The Persian religion was primitively monotheistic, and they allowed no idols or other material symbols of deity in their temples. There was less enmity on the part of the Jews against the Persians than against the other great nations with whom they came in contact, due probably to the monotheism which characterized the Persian religion. So Cyrus, whatever else may be said of him, was certainly not an idolator.—Christian Herald.

### Napkins.

Napkins became popular in France sooner than in England. At one time it was customary at great French dinners to change the napkins at every course, to perfume them with rosewater and to have them folded a different way for each guest.

### Halcyon Days.

A halcyon is a kingfisher, and "halcyon days" are so called because it was supposed that the weather was always peaceful when the kingfisher was breeding.

### Hardly.

Mrs. Kowler—Do you consider Alice very good looking? Mrs. Blunderby—Oh, Alice is pretty enough, but I would not call her an Adonis.—Boston Transcript.

He who has conquered doubt and fear has conquered failure.—James Allen.

### RECIPE FOR GRAY HAIR.

To half pint of water add 1 oz. Bay Rum, a small box of Barbo Compound, and 1/4 oz. of glycerine. Apply to the hair twice a week until it becomes the desired shade. Any druggist can put this up or you can mix it at home at very little cost. Full directions for making and use come in each box of Barbo Compound. It will gradually darken streaked, faded gray hair, and removes dandruff. It is excellent for falling hair and will make harsh hair soft and glossy. It will not color the scalp, is not sticky or greasy, and does not rub off.

### Breechloaders.

Breechloading in artillery and small arms is popular, supposed to be an invention of the middle of the last century, but such is by no means the case. In a Dublin gunsmith's shop at Cork Hill is on view a breechloading rifle offered to the British war office at the close of the eighteenth century and rejected, as it was considered to need too much ammunition!

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