

### Expert Advice For the Automobile Owner

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

What is the best means of doing away with the vibration caused by my engine when making more than twenty miles per hour? It has always done this. The car and engine are in good condition except for the vibration. The car has been equipped with airless tires.

The vibration can be minimized by balancing the reciprocating parts carefully. Remove the pistons and connecting rods. Weigh the four pistons and remove the metal from the heavier three until they weigh exactly the same as the lightest one. Do the same with the connecting rods.

In addition, if the pistons are of exceptionally heavy construction it may be possible to remove some excess material from all of them, thereby reducing the weight and vibration. The same may be said of the connecting rods.

What is the best way to strengthen the engine bed? I find that the motor rocks violently when pulling hard. The bolts holding it to the bed are tight and the bed vibrates with it.

It is next to impossible to strengthen the engine bed without putting in a new crank case. Possibly your trouble is due to allowing the motor to pull too hard. When it begins to labor on a hill shift to low gear. Do not strain the motor by allowing it to work under these conditions.

The center bolt in my rear spring flexes frequently. How can I prevent this?

The only possible explanation seems to be that you allow this bolt to come loose, or when you put in a new one you do not tighten it sufficiently. Use a lock washer to hold the nut from turning and, in addition, see that the spring clips are kept tight, because if these work loose an additional strain is placed on the center bolt.

The front cylinder in my car gets too much oil. It works well when it has a clean plug, but after running about one hundred miles it misses. What is the cause of the oily cylinder?

The trouble is undoubtedly due to a worn cylinder piston or rings or to the openings in the three rings being in alignment. An inspection of this cylinder should show where the trouble is, and if the piston or rings are worn they should be replaced. The missing, of course, is due to the plug becoming fouled with oil.

How often should graphite be used as a lubricant for springs? Would the paste or stick stove polish do if mixed with gasoline?

No rule can be given for this. Apply the graphite whenever it is found to be required. This may be only once a year, and then again it may be often. The object in using a lubricant between the spring leaves is to prevent squeaking, rusting and to cut down the friction. No great harm will be done if the car is used until the lubricant is exhausted. In fact, we would advise operating the car until it is noticed that a new application of graphite is required. Stove polish will not do. You should use flake or powder graphite. Your suggestion as to using gasoline brings up an interesting point. It is slightly preferable to mix the graphite with gasoline because after the paste is applied to the spring surfaces the fuel evaporates and leaves the dry graphite, which acts as a lubricant, yet there is no grease or oil to ooze out between the leaves of the spring and give the springs a dirty appearance.

In painting my radiator, head lights and other brass parts of my car black what can I use that will stand the heat of the lamps and radiator?

The simplest method of preparing a black varnish for brass is to fuse three pounds of asphaltum, and after it has been melted add one-half pound of shellac and one gallon of oil of turpentine.

I have always considered that speed was an indication of power, but my car's performance on hills does not bear me out in this. Why is it?

Regarding the relation of speed and horsepower, there is no definite inter-relationship between the two and no rule which states that the maximum horsepower is being exerted at maximum speed. In fact, the contrary is the case. The motor may continue to revolve at a greater speed after the power curve has reached its peak.

How can I stop rattling of scissor eye shock absorbers without tightening up the bolts until the car rides hard?

To stop rattling of scissor type shock absorbers without taking up on the bolts until the car is hard riding, insert two thin rubber disks cut from an old tube, on each side of each wooden washer as furnished.

What are the methods used in finding the tie rod bolt center position in relation to king bolt center on a front axle for both tie rod in front and tie rod in rear of the axle? Are the wheel base and tread of a car of importance in finding these positions?

The steering arms are aligned so that their center lines intersect at the central point of the rear axle. This alignment is independent to some extent of the wheel alignment, as both wheels may be correctly cambered and gathered, with one of the steering arms at a faulty angle. In moving straight ahead this would have no effect, but in turning the wheels do not run on a true circle, so that both wheels are subjected to a tire grinding. The same effect results from the tie being too short or too long.

To determine whether or not the steering connections are properly made it is necessary to know that the angle of the steering arms and the axle spindles is right, and that the tie rod is of the right length. Both of these depend upon the distance apart of the steering king bolts and on the wheel base of the car.

Measuring the angles of the steering car, as made with the axle, the correct angle that the steering arms on the car should make with the car is found. Frequently in lining up the wheels of a car the steering connections are thrown out by lengthening or shortening the tie rod to get the proper gather. This should never be done, as improper gather is usually the result of bent wheel spindles. The tire wear resultant from bad wheel setting is obviated at the expense of a serious wear on account of faulty steering.

How can I prevent the body of my car from squeaking, the body being all steel except the dashboard? The squeaking appears to be all in the dashboard.

Body squeaks can be eliminated by lubricating the rubbing parts that cause this noise or by stopping their relative movement. As a rule, though, it is extremely difficult to locate the exact point at which the noise occurs. Get some one to listen for the squeaks while you drive the car slowly over a rough road. Having found where the trouble is, a little lubricating oil or grease will stop the noise, or if it is due to the looseness of adjacent parts the squeaks can be stopped by tightening up these parts.

Can you suggest something which will clean out the radiator of my car, which has become clogged? Have tried soda without effect.

The proper solution to use in cleaning out a clogged radiator depends upon what particular impurity has clogged it up. Usually this happens through a deposit of solid material from the cooling water which forms on the interior of the entire cooling system. Soda quite frequently will dissolve this, but some deposits do not respond to this treatment. The situation is the same as that of steam boilers, and some of the boiler compounds probably will be valuable. It is suggested that you send a sample of the water employed to a water compound manufacturer, who can then, upon analysis of the water, determine the proper cleaning compound to supply. There are a number of radiator cleaners manufactured especially for motor cars, and they may be beneficial.

Is the clutch of the disk type if the car is managed by the clutch coming against a round flat piece of metal?

No. The disk clutch consists of a series of metal plates, face to face, alternate ones being connected to the engine and the others to the transmission. When these are pressed together by a spring they all turn together. The device you refer to is the clutch brake which keeps the clutch from spinning.

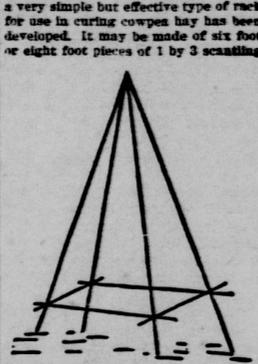
How often should the front axle be greased?

You evidently refer to the front wheel bearings. These should be packed with grease every 1,000 miles and the steering knuckle and the tie rod connections oiled every week.

My motor overheats. It seems when driven eight or ten miles. Would too much oil cause this, as it smokes at the exhaust?

The use of too much oil for any length of time will cause carbon to deposit on the piston and cylinder head and thus cause the motor to heat. If misfiring is evident and loss of power, then treat the motor as one badly carbureted. However, the heating may be due to other things besides carbon. The motor should not be operated with the spark retarded too far, and the water system must, of course, be free from obstructions. If the pistons are poorly fitted or the rings worn excessively the oil will work up into the combustion chamber, deposit carbon and cause heating. Try to do as little intermediate and low gear work as possible.

For Curing Cows. At the Tennessee experiment station a very simple but effective type of rack for use in curing cowpox has been developed. It may be made of six foot or eight foot pieces of 1 by 3 scantling



or of four poles fresh cut in the woods. Small pieces or poles are fastened together to form a rack as illustrated. Crosspieces are used as shown. About six or seven of these racks are required to an acre of peas.

To Succeed With Alfalfa. Almost every farmer is interested in growing alfalfa. Some have tried it and failed. Many have succeeded and are reaping the benefits of this wonderful crop for live stock farms. As a hay crop it excels all others in yields, feeding value, drought resistance and soil enrichment. Yet it is not advisable to attempt to grow alfalfa under all circumstances. It is a rather particular crop, requiring certain soil conditions and proper treatment. The beginner in alfalfa growing must first of all be a student of alfalfa. He must study the crop and learn its requirements. If he is not willing to pay attention to such important details as inoculation, liming, proper seeding methods and cutting at the proper stage he had better not try to grow alfalfa.

#### BILLION BUSHEL WHEAT.

"A billion bushels wheat crop" is the prediction of B. W. Snow, grain expert for Dartlett Frazier & Co. Figures compiled by Mr. Snow to date show the winter wheat crop will total 630,000,000 bushels and the spring 365,000,000, making a total of 994,000,000 bushels.

The misfalls have decreased grain crops a little, according to Snow, but the large acreage this year will more than make up for it. Iowa reports that all her wheat has been cut, except 3 per cent. There has been scarcity of fresh wheat since the rain started to fall, causing contract prices to jump 6 cents a bushel.

"Delay in thrashing out wheat is the only trouble grain houses have had," said Mr. Snow, "but with some good weather there will be plenty to sell." Oats, Snow declared, were the principal sufferer from the rains.

#### GET RID OF THOSE POISONS IN YOUR SYSTEM:

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#### FACTS AND FICTION

Experiences of Aberdeen Citizens Are Easily Proven to be Facts.

The most superficial investigation will prove that the following statement from a resident of Aberdeen is true. Read it and compare evidence from Aberdeen people with testimony of strangers living so far away you cannot investigate the facts of the case. Many more citizens of Aberdeen endorse Doan's Kidney Pills. Mrs. Samuel Hillier, 910 W. Hume St., Aberdeen, says: "I, and others of my family have used Doan's Kidney Pills and have found them to be just as represented. We were having trouble with our kidneys and back. Our backs used to ache most of the time and when we got up mornings, we often felt tired and worn out. The action of the kidneys was irregular and the kidney secretions were unnatural. We tried various remedies, but got no relief until we took Doan's Kidney Pills. They benefited us greatly."

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#### IMPORTANT! NOTICE TO PROPERTY OWNERS AND AGENTS.

Below we give a list of all Local Improvement Districts in which the annual installment becomes delinquent in September, also the date of delinquency and the nature of the improvement.

The mailing list now in the Treasurer's office is so far from correct on account of the numerous transfers since the list was made that it is useless to mail notices until the new list we are arranging is completed.

In the compilation of this new list you can be of great assistance to us and also insure the mailing of assessment notices to the proper address if you will give us a list of the property owned by you inside the City limits and your mailing address.

- L. I. D. No. 229, Market and K St. Walks, due September 23.
- L. I. D. No. 369, Alley in Block 46, due September 12.
- L. I. D. No. 334, Paving B St., due September 13.
- L. I. D. No. 392, Pioneer Boulevard, due September 25.

T. H. HILL, Treasurer.

#### SPECIAL NOTICE

Notice is hereby given that all accounts payable to the Aberdeen Herald, or to the undersigned on behalf of the Aberdeen Herald, are payable to Jas. A. Stimson, who will receipt for the same.

JNO. J. CARNEY.

The Herald is the most widely read paper in Grays Harbor county. Wise advertisers know it.

## Moclips Had Two Big Fires in Two Weeks

Fires have been of unusual frequency lately in Aberdeen

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