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The garments are soft, warm, snug-fitting and always comfortable.



Watson's UNDERWEAR

The Watson Manufacturing Co., Limited, Brantford, Ontario.

PITTSBURGH, PA., Sept. 16.—A room and remained away until the big British flag draped on the wall above a platform in a hotel where the assembled delegates to a Convention International Steam Operating Engineers here today caused the suspension business until it was replaced by the United States colors. Several of the delegates protested against the presence of the flag because no United States flag, equal in size was in sight and when the flag was not immediately taken down they marched from the

Hints for the Motorist

BY ALBERT L. CLOUGH

LOWERING COMPRESSION TO REDUCE KNOCKING

A Drastic Expedient, But Sometimes Permissible.

In order to avoid Detonation and also to reduce the liability to pre-ignition and knocks due to it, it is becoming quite common practice to slightly reduce the compression which is done by enlarging the clearance space between the piston-head and cylinder-head by inserting a shim or liner between the crank case and the cylinder-block, thus raising the latter; by using a thick gasket on several gaskets between the cylinder block and head, by the use of chambered out caps over the valves or by fitting shorter pistons that are somewhat shorter above the wrist pins. Some car builders have brought out such parts for application to their engines. Reducing compression is a bad thing in itself, as it tends to reduce the output and economy of engines, but it may be warranted if it eliminates knocking, enables an engine to be operated satisfactorily for longer periods between cleanings, and permits running at full throttle. It may go with a trial by those motorists whose engines have a fuel knock, even when clean, or which acquire a knock within a few hundred or a thousand miles after being decarbonized. The real remedy for which all motorists may devoutly pray, is an improvement in fuel, by which its chemical instability and readiness to detonate and self-ignite may be removed. Already, something is known as to how to accomplish this, by the addition of certain substances and the chemical modification of existing constituents and the outlook is far from unfavorable. It is also believed that anything that increases the rate of combustion, due to the spark, diminishes the likelihood of a secondary explosion or detonation, such as a greater mixing action or "turbulence" of the entering charge and experimental work is being done along this line.

CAT WAS MEANS OF RECOVERY OF DYES

NEWARK, N. J., September 16.—Methods attributed to the scientific detective in modern tales of mystery as applied to chemical analysis of orange-colored spots on a water-front cat, brought recovery of \$300,000 worth of stolen German dyes and the arrest of 17 men the United States Department of Justice Bureau here announced today.

Government sleuths engaged to solve the mystery of who held up watchmen at a state department warehouse in Hoboken, where six thousands pounds of German dyes as part of Germany's indemnity dye stuff, and cartons of the had been at work on the case for weeks. Suddenly attention was attracted by the strange orange color of spots on a wharf cat.

Following what amounted to an inspiration, a department of justice agent caught the cat and took it to a chemist, where its orange hair was analyzed, with the discovery, it was stated, that German dyes were responsible for its unique color.

The cat was then released and shadowed. Its "home" was said to have been located in a house on River Street, Hoboken. This house was watched for a long time. Last week, as a result of shadowing visitors to the River Street house, department of justice agents said they had recovered 2,000 pounds of the stolen dyes on a motor truck in Paterson, and 3,000 pounds more

OVER-EATING

is the root of nearly all digestive evils. If your digestion is weak, out of kilter, better eat less and use

KI-MOIDS

The new aid to better digestion. Pleasant to take—effective. Laxative effect—helps straighten out your digestive troubles.

MADE BY SCOTT & BOWNE MAKERS OF SCOTT'S EMULSION

in a Brooklyn warehouse. Arrests followed by two and three almost immediately afterwards. It was stated

COMPRESSION MAY BE TOO HIGH

J. E. G. writes: My car was built about ten years ago, but is in good repair. Its connecting-rods, wrist-pins and fly-wheel are all tight, and the engine is free from Carbon and tight on the frame. I have no trouble when running on the level or up a short grade, but when the engine pulls heavily on a hill, a knock develops at all positions of the spark lever. What is the cause of this knock?

Answer: Assuming that you are correct in stating that there is no mechanical looseness about the engine and also assuming that the ignition is so timed that you can obtain sufficient retard for quiet operation at slow speed and full throttle, it seems likely to us that your engine was designed for a compression pressure higher than present-day gasoline and that pre-ignition occurs, which causes the knocking. This theory would explain why no knocking occurs under easy road conditions and why, when the throttle is fully open, the compression increased to its utmost, knocking takes place. Compression can be decreased by raising the cylinders from the crankcase by inserting a liner between them.

E. J. writes: The water in my radiator boils when I have driven the car a few miles. The carburetion oiling and cooling systems seem all right and I have recently had the carbon scraped out. Can you advise me as to the trouble?

Answer: Be sure that the fan-belt is tight enough. If the fan does not stop promptly when the engine does, the belt is too loose. Flush out the radiator and the jackets thoroughly, with pressure from the garden hose. Renew rubber hose connections, unless they are fairly new ones. Detach the upper hose and see that pump acts properly. See that the radiator is clean externally. Run with spark as far advanced as practicable and avoid overrich fuel mixtures. Have you changed your engine oil lately? Thin oil or oil of poor quality leads to overheating. Are you sure that your brakes do not drag? Unless they are perfectly free of their drums, when released, the radiator is likely to boil.

R. M. G. asks: What compression should a 3x3 inch engine have in order to operate on the present grade of fuel? What equipment can be used upon such an engine to help vaporize this fuel? Are two rings sufficient for each piston or would three rings be better?

Answer: A compression pressure of about 70 pounds per square inch by the gauge, is as high as can safely be used. Higher compressions are likely to cause knocking. Some form of jacketed or hot-spot manifold is the means generally adopted to secure vaporization. The intake manifold and the exhaust manifold are brought together for a short portion of their length and the hot gases in the latter heat a part of the former to such a point that, when liquid gasoline strikes it, it is vaporized. Three rings per cylinder are generally regarded as better than two, but good results can be obtained with the smaller number.

RATTLING SPRINGS

W. E. W. asks: Can you tell me how to prevent the springs of my car from rattling? The rattle is mostly where the shackles pass through the rear spring, at its front end. I have taken this bolt up, as tight as I can, but it still rattles on rough roads.

Answer: Tightening the bolt as you describe by loosening the nut, screwing in the bolt and then resetting the nut, should take out all the end-play of the spring-eye on the bolt and whatever rattle remains must, if it will occur, be due to looseness of the bolt in the parts through which it passes, due to wear. If this is the case, you should obtain over-size spring-bolts and have the holes reamed out so that the parts will be a tight fit. The spring-eye is usually fitted with a removable bushing, which can perhaps be reamed to a good fit but, if not, you can drive out the old one and force in a new over-size one to correspond with the new pin.

Questions of general interest to motorists will be answered in this column, space permitting. If an immediate answer is desired, enclose self-addressed, stamped envelope. Address Albert L. Clough, care of our office.

WATERED GASOLINE

Luckily Gas doesn't stay "Watered" Like Milk Does.

It is a very fortunate fact that gasoline and water will not mix in the slightest degree, if present in the same receptacle. If they were capable of mixing, there would be infinitely less likelihood in securing satisfactory fuel than there actually is. Luckily, the complete impossibility of permanently mixing the two liquids makes it easy to detect and get rid of whatever water is accidentally (or intentionally) present in the fuel supplied to the tank. It is equally fortunate that water is much heavier than gasoline as it causes it to settle to the bottom of tanks and carburetor bowls, from which it can readily be drawn off and discarded. The presence of water in the fuel system does not affect the quality of the gasoline in the slightest and, contrary to a widespread belief, watered gasoline does not make an

engine sluggish or diminish its power. It either does not affect its running at all or it stops it completely. If there is water in the fuel system, all goes well until it gets into the carburetor bowl and settles there to the height of the passage to the spraying-jet or nearly enough to that height so that the motion of the car jostles it into the jet passage. When this occurs, water not fuel is being sprayed and the engine, after a few missed explosions, stops dead. The line of demarcation between the two liquids is so distinct, that the spray nozzle either delivers gasoline or water. There is no halfway condition that makes the engine "lumpy" as so many motorists think, but there may be a period of irregular firing while the two liquids are shaking around in the float-chamber. Low power and unsatisfactory "pickup" may be due to low grade gasoline, but not to water. The effect of water reaching the spray-nozzle is to definitely stop carburation and operation. It is almost worn while of any motorist who has not seen the behavior of water and gasoline in the same receptacle to put a quantity of each into a bottle and note how definitely they separate and how easily they can be identified.

"SWAPPING" FRONT AND REAR TIRES

A. P. W. asks: Does it pay to exchange the front and rear tires, on a new car, after it has been run a while?

Answer: We believe that it does. The rear tires have to withstand all slippage and all driving and braking stresses and are thus much more severely used than the front ones. By changing them to the front and the front tires to the rear wheels, after about one-half the expected tire mileage has been run, the wear on the two sets is equalized and the time at which the first blowout may be expected

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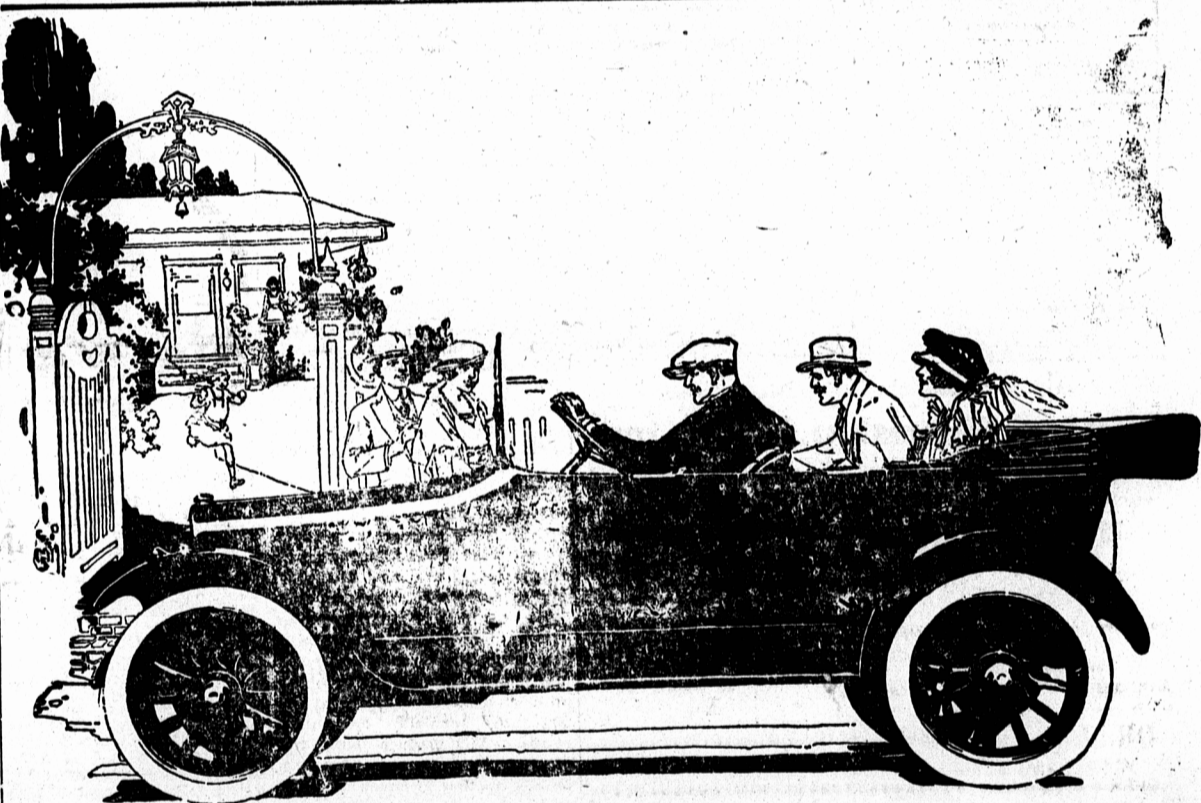
Efficient—Thorough—Hygienic

main there for a few hours, while the car is in use and then drawing it off. A solution of lye or potash can be used safely, if this does not restore the circulation. If parts of your radiator do not get hot as soon as others, when the engine is first started, it is a pretty sure sign that the circulation is clogged in places. Are you sure that your rubber water-connections are of full diameter inside and that the fan-belt is tight enough so that the fan turns at full speed. The belt tension should be such that the fan requires appreciable force to move it by hand, when the engine is stopped.

LONDON, September 16.—The condition of eleven Cork hunger strikers was reported lower today with little expectation that they would be released. General Willis inquiry into the sentence of Sean Hennessy, American hunger striker, brought out nothing to show his innocence of the charge of having a bomb in his possession.

LONDON, September 16.—Sir Robert Horne, president of the Board of Trade, will meet with the miners' executives today, following the request of Robert Smillie, labor leader, in a final attempt to reach some solution of the industrial problem in connection with the approaching strike.

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