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COMPOSITION FOR REMOVING CARBON AND RUST

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This invention relates to a new and useful composition of matter, particularly adapted for removing and preventing incrusting deposits such as the carbon deposits ordinarily formed within the cylinders and on the valves of internal combustion engines, and rust deposits, and which is also useful as an aid in the lubrication of machinery, when added to the oil used for that purpose.

The objects of the invention are to provide a composition which when added to the fuel of an internal combustion motor, as for example in an automobile, and thereby introduced to the explosion cylinder, will have the effect of removing and preventing the formation and deposit of carbon on the internal parts of the motor. Another object is to provide a composition which may be added to the lubricant of machines, as for example to the oil in the crank case of an automobile motor, for the purpose of improving the lubricating quality of the oil. Another object is to provide an efficient non-squeak lubricant for automobile brake linings.

Compositions for removing carbon from the cylinders of combustion motors are not new. Some of the ingredients described in the present case have previously been used. But such compositions have generally contained as one element, benzine or naphtha, and those elements I have discovered to be undesirable if not actually harmful. Benzine tends to produce corrosion in the cylinders of internal combustion motors where it is introduced in connection with the fuel. Naphtha, while it tends preliminarily to remove carbon, seems to produce some other and secondary form of incrustation in the motor, and does not seem therefore to be of any permanent benefit.

The preferred form of the composition is made by taking one gallon of kerosene or similar hydrocarbon oil, one quart of engine or motor oil, from one to one and one-half ounces of lubricating graphite, three ounces of ether, and three ounces of spirits of camphor. All of these ingredients should be of the very best grade, and particularly the ether must be pure. The hydrocarbon oil referred to is preferably a highly refined kerosene; and the lubricating oil is suitably a mineral oil which has been refined to approximately 24.5 to 27° Beaumé gravity. A graphite analyzing about 90% carbon, the balance being ash, and which completely passes a 200-mesh screen has been found to be satisfactory, but other graphites of the class termed "lubricating" will serve. By the term "ether" is meant di-ethyl ether, commonly called sulfuric ether, which should be of high quality, preferably the grade known to the trade as "ether for anæsthesia"; and spirits of camphor corresponding to the requirements of the United States Pharmacopœia will be satisfactory.

The combination of these ingredients is preferably made by first mixing the hydrocarbon oil and lubricating oil together and thoroughly shaking; then adding the graphite and again shaking; then adding the ether and again shaking; then adding the spirits of camphor and again thoroughly mixing. Particularly, the camphor should not be added before the ether, as it may cause combustion. The composition will not be so effective for the uses stated if the order above mentioned is not followed in preparing it.

This composition has a number of different uses. For example, by applying about three ounces of it in the fuel tank of an automobile for each ten gallons of gasoline therein, it will be found that deposit of carbon in the cylinders will be absolutely prevented, and carbon that is already there will be loosened up and caused to pass out with exhaust gases. After a substantial use of this composition, instead of the carbon in the solid form ordinarily found, it will be discovered that the walls of the cylinder will be thinly covered by a soft coat of a high lubricating quality. This is apparently carbon in its graphitic form.

Another use of the composition is the adding of it to the lubricating oil in the crank case of a motor, in the proportion of about two ounces to a gallon of oil. This is found to be particularly effective in the case of a new car. Apparently the composition causes the oil to penetrate more quickly into the tight bearings of a new machine, and the graphite

materially aids in the lubrication of the unworn parts.

Where the composition has been used with a new car, it has been found that after it has been driven for an hour or so the motor runs like a well broken-in one, and the danger of burning out bearings, etc., is largely eliminated.

This composition has been found to be a very effective lubricant for prolonging the life of brake bands and preventing the squeaks that result from lack of lubrication. Where used regularly the brakes will last many times as long as where not so treated, and will not burn out no matter how much they may be used.

Although some variations in the ingredients above referred to is possible, experience leads to the belief that the mixture and proportions given are best for the purposes referred to.

Not only is this composition a carbon softener and remover, but it is also a rust remover and preventative. It is very effective when added to the lubricant of such machines as air compressors, blowing machines in glass houses, condensing engines in steel plants, etc. It passes into the interior of such cylinders, and effectively prevents the formation of rust on the inside thereof.

I claim:

1. A composition of matter adapted for use as a carbon and rust remover and preventative, consisting of kerosene, lubricating oil, lubricating graphite, ether, and spirits of camphor, proportioned as follows:

Kerosene	about 1 gallon.
Lubricating oil	about 1 quart.
Lubricating graphite	from 1 to 1½ ounces.
Ether	about 3 ounces.
Spirits of camphor	about 3 ounces.

2. A composition of matter consisting of kerosene, lubricating motor oil, lubricating graphite, ether, and spirits of camphor.

In testimony whereof, I sign my name.

GEORGE R. WAGNER.