Patented Jan. 20, 1925. 1,523,547

UNITED STATES PATENT OFFICE.

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GASOLINE-FILTERING COMPOUND.

No Drawing. Application filed July 22, 1920. Serial No. 398,221.

To all whom it may concern:

Be it known that I, THOMAS LE VORA, citizen of the United States, residing at Iowa City, in the county of Johnson and State of Iowa, have invented certain new and useful Improvements in Gasoline-Filtering Compounds, of which the following is a specification.

This invention relates to gasoline filtering compounds and materials, and comprises a special selection and mixture of substances for the purpose as determined by somewhat extended trials and experiments, and in view of the following conditions:

Gasoline which has been used to clean fabrics of all kinds, gloves, clocks and watches and minor implements and devices, carries mixed in it not only oils but dirt and solid particles of various nature. Obviously, the dirt and other foreign materials must be removed as well as the oils and grease, before the gasoline is in fit state to be further employed to cleanse soiled articles, particularly fine fabrics. The ordinary granular filtering materials, however apparently fine, do not in practice result in successfully clarifying the gasoline. Oftentimes after filtration through the customary media the fact that other substances remain in the liquid may be detected by sight, the same having a decided color or tint.

It has been discovered in practice that sodium hydroxide used in the greatest percentage in the mixture possesses an affinity for oils and grease. Pure sodium hydroxide is, for general commercial work, very expensive, and it is not essential that a greater proportion of the mixture constituting this invention than that stated herein shall be sodium hydroxide. The other materials specified are found to make up a filtering bed which with the sodium hydroxide remove the impurities from gasoline more thoroughly than any compounded substances with which this applicant is at present acquainted.

In carrying out this invention there are compounded 75% sodium hydroxide, 4% sodium carbonate, 1½% sodium chloride, 17½% sodium sulphate, and moisture of which there is usually approximately two per cent. To produce a result satisfactory to a certain degree it is not necessary to adhere strictly to the proportions of the substances hereinabove set out, but, as stated after somewhat extended practical trials and experiments, all things considered, the proportions given are believed to be the best for this purpose. It will be noted from the proportions of the four compounds of sodium mentioned that, the hydroxide is relatively much the larger amount, and that the others follow in substantially and roughly each one-fourth of its predecessor's quantity if stated in order, sulphate, carbonate and chloride.

Specially constructed apparatus is not required, although devices such as illustrated and described in my application for Letters Patent of the United States, for gasoline renovator, filed January 12, 1920, Serial Number 351,029, will be found especially convenient and useful in this connection. To carry out this invention all that is needed is that the impure gasoline shall be passed through the filtering mixture compounded in accordance with this invention, and thereafter permitted to settle in any sort of container. The clarified gasoline may be drawn off from the top and the impurities will be found to have settled to the bottom.

In addition to their unusually effective filtering action upon gasoline, it is believed that the sodium compounds mentioned tend to saponify the oils and grease and to thus separate the grease from the gasoline.

Having now described this invention, and explained the manner in which it is carried out, I claim:

1. A gasoline filtering compound consisting of a mixture of seventy-five per cent of sodium hydroxide, seventeen and one-half per cent of sodium sulphate, four per cent of sodium carbonate, one and one-half per cent of sodium chloride, and a small amount of water substantially as described.

2. A gasoline filtering composition consisting of four chemical compounds of sodium and a relatively small amount of water, said compounds being sodium hydroxide in relatively large proportion, and sodium sulphate, sodium carbonate and sodium chloride each in amount substantially one-fourth of the quantity of its predecessor in the order named.

In testimony whereof I affix my signature.

THOMAS LE VORA.