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UNITED STATES PATENT OFFICE.

JOHN J. VARN BUHLER, OF DETROIT, MICHIGAN.

RUST-REMOVING COMPOUND.

No Drawing. Application filed April 26, 1924. Serial No. 709,201.

To all whom it may concern:

Be it known that I, JOHN J. VARN BUHLER, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Rust-Removing Compounds, of which the following is a specification.

My present invention relates to a metal cleaning compound intended particularly for use in cleaning surfaces of metal parts which are subsequently to be painted or enameled. In my prior application filed December 28, 1921, Serial No. 525,472, and in my Patent No. 1,473,529, November 6, 1923, I have described metal cleaning compounds comprising essentially a rust preventing liquid, an acid and alcohol. In my said application I have claimed specifically linseed oil as the preferred rust preventing liquid and in my said patent I have claimed specifically glycerine as the rust preventing liquid.

My present invention is an improvement on the inventions described in said application and patent and consists broadly in employing acetic acid, either in addition to the rust removing acid specified in the said formulæ contained in said application and patent or in substituting for a portion of said rust removing acid, acetic acid. I find in practice that the solution is very much improved by the addition of the acetic acid as described, particularly as to its spreading and washing qualities.

If linseed oil is to be employed the following is the formula which I prefer—

24 ounces raw linseed oil.
56 ounces denatured alcohol.
48 ounces hydrochloric acid.
13 ounces acetic acid.

These ingredients are preferably compounded as described in my said prior application.

If glycerine is employed the following is the formula which I prefer:

32 ounces hydrochloric acid.
64 ounces denatured alcohol.
32 ounces glycerine.
13 ounces acetic acid.

The rust removing compounds produced by the following formulæ are used as described in my said prior application.

What I claim is:—

1. A metal cleaning compound containing an acid which will attack rust, acetic acid in addition thereto, a rust preventing liquid which is not attacked by acid, and a solvent for the rust preventing liquid.

2. The metal cleaning compound containing an acid which will attack rust, a small quantity of acetic acid in addition thereto, a rust preventing oil which is not attacked by acid, and a solvent for the oil.

3. A metal cleaning compound containing linseed oil, a solvent therefor, an acid which will attack rust and in addition thereto acetic acid.

4. A metal cleaning compound containing linseed oil, alcohol, hydrochloric acid and acetic acid.

5. A metal cleaning compound containing raw linseed oil, alcohol, hydrochloric acid and acetic acid.

6. The metal cleaning compound comprising 24 parts by volume of raw linseed oil, 56 parts of denatured alcohol, 48 parts hydrochloric acid and 13 parts acetic acid.

In testimony whereof I affix my signature.

JOHN J. VARN BUHLER.