

UNITED STATES PATENT OFFICE.

JULIUS STOCKHAUSEN, OF CREFELD, GERMANY.

DETERGENT AND PRODUCTION OF SAME.

998,995.

Specification of Letters Patent.

Patented July 25, 1911.

No Drawing.

Application filed December 11, 1909. Serial No. 532,682.

To all whom it may concern:

Be it known that I, JULIUS STOCKHAUSEN, a subject of the German Emperor, and residing at the city of Crefeld, Germany, have invented a new and useful Detergent and Production of Same; and I do hereby declare the following to be a full, clear, and exact description of the same.

The present improvements relate to a compound or emulsion, especially useful as a detergent soap for dry cleaning, chemical washing and as an emulsifier in the removal of fat and grease.

Soap (such as ordinary laundry soap, Marseilles soap, or olive oil soap) is only in a small measure (about 5%) clearly soluble in the products obtained by mixing a sulfo-oleaginous body with a hydrocarbon-chlorid (such as carbon-tetrachlorid, etc.). My new compound, which is characterized by the inclusion of alcohol, will, however, form a clear solution with a considerably greater quantity of soap—up to thirty or forty per cent. of soap. At the same time, freezing of the solution or emulsion, during cold weather, is stayed. This effect is further increased when soap of castor oil, preferably neutral soap of castor oil is also added to the compound.

My new compound consists of a mixture containing alcohol, neutral soap of castor oil, soap (such as ordinary laundry soap, Marseilles soap, or olive oil soap), a sulfo-oleaginous body (such as sulfonated fats, or oils, or fatty acids or oleic acids, or Turkey-red oil; or sulfonated soaps obtained by treating the before mentioned sulfonated products with excess of caustic soda, and mentioned sulfonated products with excess of caustic soda, and hydrocarbonchlorids (such as tetrachlorid of carbon, tetra- or perchlorethane, tri- or perchlorethylene, etc.)

To produce my new compound, I may proceed as follows:

Example I: 100 parts of soap obtained by treating sulfonated oils and fats with 7 to 9% of caustic soda preferably at higher temperatures, which soap is commercially

known as "monopol-soap", are dissolved in little water. The solution obtained is mixed with 60 to 80 parts of tetrachlorid of carbon, 2 to 10 per cent. alcohol, and with 10 to 30 parts of ordinary laundry soap, instead of which olive oil soap may be employed.

Example II: 100 parts of Turkey-red oil are mixed with 30 to 50 parts of tetrachlorethane and 2 to 10 per cent. alcohol, finally the mass thus obtained is dissolved in little water. The solution obtained is mixed with 10 to 30 parts of laundry soap or olive oil soap.

To either of the products obtained as aforesaid, I may add 5 to 15 parts of neutral castor oil soap.

The mixture can be employed with excellent results for removal of fats, or for washing, imparting to some goods a peculiar luster.

What I claim is:

1. A new compound containing alcohol, soap of castor oil, a sulfo-oleaginous body and a hydrocarbonchlorid.

2. A new compound containing alcohol, neutral soap of castor oil, a sulfo-oleaginous body, and a hydrocarbonchlorid.

3. A new compound containing alcohol, neutral soap of castor oil, sulfonated castor oil, Marseilles soap and tetrachlorid of carbon.

4. A process for producing a detergent compound, consisting in treating sulfonated oil with excess of alkali, and adding thereto a hydrocarbonchlorid and alcohol.

5. A process for producing a detergent compound, consisting in treating sulfonated oil with excess of alkali, and adding thereto a hydrocarbonchlorid, alcohol and soap of castor oil.

6. A process for producing a detergent compound, consisting in treating sulfonated oil with excess of alkali, and adding thereto a hydrocarbonchlorid, alcohol and neutral soap of castor oil.

7. A process for producing a detergent compound, consisting in treating sulfonated castor oil with excess of alkali, and adding

thereto tetrachlorid of carbon, alcohol and soap of castor oil.

8. A process for producing detergent compound, consisting in treating sulfonated castor oil with excess of alkali, and adding thereto tetrachlorid of carbon, alcohol and neutral soap of castor oil.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

JULIUS STOCKHAUSEN.

Witnesses:

WILLIAM J. REUTER,
HENRY CUADFLIEG.