

UNITED STATES PATENT OFFICE.

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FINISH-REMOVER.

1,051,318.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARLETON ELLIS, a citizen of the United States, and resident of Larchmont, county of Westchester, and State of New York, have invented certain new and useful Improvements Relating to Finish-Removers, of which the following is a specification.

This invention relates to finish removers and relates especially to non-inflammable finish removers comprising a relatively small proportion of carbon-tetrachlorid or other chlorinated solvents.

The coal tar derivative sold under the name of solvent naphtha is a valuable solvent for use in non-inflammable finish removers because of the comparatively small proportion of inflammable or explosive vapors which it emits as compared with most other active penetrating solvents. Solvent naphtha, which is the third distillate from coal tar as usually prepared has a specific gravity of about .875 and a flash point of about 80 degrees Fahrenheit and consists largely of xylol, cumol and mesitylene, about 90 per cent. distilling off at a temperature of 160 degrees centigrade. Solvent naphtha may be used in connection with other penetrating solvents, preferably of high flash point, such for example as petroleum naphtha free from kerosene and having a flash point of 105 degrees Fahrenheit or so and the loosening solvents incorporated should be preferably the alcohols or other loosening solvents having a relatively high flash and boiling point and being substantially water-immiscible character so as to be relatively free from water which minimizes the hydrolytic decomposition of the chlorinated solvents employed, allyl, amyl and benzyl alcohols, for instance, being suitable loosening solvents for use in this connection and the somewhat similar loosening solvent, amyl acetate being desirable for these reasons and also as promoting the miscibility of the other ingredients. It is of course understood that other finish softening agents may be incorporated as well as waxy or other stiffening material.

A suitable illustrative composition may be prepared by incorporating 40 parts of solvent naphtha, 10 parts of petroleum naphtha free from kerosene and having a flash-point of about 105 degrees Fahrenheit,

10 to 20 parts of carbon-tetrachlorid, 30 parts of allyl alcohol distilled above 65 degrees C., 10 parts of benzyl alcohol and 5 parts of paraffin or ceresin wax, the ingredients being preferably thoroughly incorporated at a slight increase of temperature.

Another desirable illustrative composition may comprise 50 parts of solvent naphtha, 25 parts of carbon-tetrachlorid, 20 parts of amyl alcohol, 5 parts of amyl acetate and 4 to 5 parts of paraffin or similar wax.

Another illustrative composition may comprise 25 parts of solvent naphtha, 20 parts of petroleum naphtha of high flash-point, 20 parts of carbon-tetrachlorid, 35 parts of allyl alcohol distilled above 65 degrees C. and 3 to 5 parts of paraffin or ceresin wax.

Another desirable composition may comprise 50 parts of solvent naphtha, 5 to 25 parts of carbon-tetrachlorid, 25 parts of creosol or creosote and 5 parts of paraffin.

By the use of even these small proportions of carbon-tetrachlorid the inflammability of the composition is sufficiently suppressed so as to be satisfactory for ordinary purposes, the relatively small proportion of carbon-tetrachlorid being of course advantageous because minimizing the possibility of decomposition as well as reducing the price of the remover.

This invention has been described in connection with a number of illustrative ingredients, formulas, proportions and processes, to the details of which disclosure the invention is not, of course, to be limited.

What is claimed is:—

1. The finish remover comprising approximately 40 parts of solvent naphtha, 10 parts of petroleum naphtha substantially free from kerosene, between 10 and 20 parts of carbon-tetrachlorid, 30 parts of allyl alcohol distilling above 65 degrees centigrade, 10 parts benzyl alcohol and 5 parts of incorporated waxy stiffening material.

2. The finish remover comprising approximately 40 parts of solvent naphtha, between 10 and 20 parts of carbon-tetrachlorid, 30 parts of allyl alcohol distilling above 65 degrees centigrade, 10 parts of benzyl alcohol and incorporated stiffening material.

3. The substantially non-inflammable finish remover comprising approximately 40

parts of solvent naphtha, a considerable proportion though less than 20 parts of carbon-tetrachlorid, 40 parts of substantially water-immiscible alcoholic solvent comprising
5 allyl alcohol and incorporated stiffening material.

4. The finish remover comprising approximately 40 parts of solvent naphtha, 10 parts of petroleum naphtha substantially
10 free from kerosene, between 10 and 20 parts of carbon-tetrachlorid, 30 parts of allyl alcohol distilling above 65 degrees centigrade and 10 parts of benzyl alcohol.

5. The finish remover comprising approximately 40 parts of solvent naphtha, between 10 and 20 parts of carbon-tetrachlo-

rid, 30 parts of allyl alcohol distilling above 65 degrees centigrade, and 10 parts of benzyl alcohol.

6. The substantially non-inflammable finish remover substantially consisting of relatively high boiling point organic finish solvent material comprising 30 parts of solvent naphtha, between 10 and 20 parts of carbon-tetrachlorid, 40 parts of substantially water-immiscible loosening solvent material, including benzyl alcohol and incorporated
25 stiffening material.

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Witnesses:

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