

UNITED STATES PATENT OFFICE.

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CALIFORNIA.

COMPOSITION FOR REMOVING PAINT AND RUST.

SPECIFICATION forming part of Letters Patent No. 533,666, dated February 5, 1895.

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To all whom it may concern:

Be it known that we, ROBERT W. PFÄFFLE and GEORGE L. NORTH, citizens of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Paint and Rust Removers; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to a compound which is especially designed for the purpose of removing old paint from surfaces to clean or prepare them for repainting, and also to remove rust where it has accumulated upon iron.

Our invention consists in the combination of certain ingredients which act to loosen and saponify the old paint, and to leave a smooth surface which will receive a new coat as perfectly as new wood.

In preparing our compound, we employ Irish moss, ethylic alcohol, commercial potassium hydrate, sodium hydrate, oil of sassafras or other heavy volatile oil and water. These are united in various proportions, but we have found the following proportions very satisfactory:—Irish moss, twenty pounds; ethylic alcohol, twenty pounds; potassium hydrate, one hundred and thirty-five pounds; sodium hydrate, one hundred and thirty-six pounds; oil of sassafras, one pound; ordinary water, seventy-two and one-half gallons.

The Irish moss is first thoroughly washed with fresh water to deprive it of all its saline qualities, and is then placed in the seventy-two and one-half gallons of water in a containing vessel within which it is allowed to boil for an hour.

The amount of water which has evaporated may either be indicated by taking the weight of the vessel before and after the boiling, or by means of marks upon the inside of the vessel, and enough water is then added to replace the amount which has been evaporated.

We then add the sodium hydrate one-fourth at a time, until the whole is completely dissolved. The potassium hydrate is then added in the same manner, the whole mass being constantly stirred during the process, and it is then strained and allowed to cool until it reaches the temperature of about 150°. The oil of sassafras is added to the alcohol, and

the two are then mixed into the compound previously prepared, the whole being stirred briskly until a uniform emulsion is formed.

This compound is especially useful in removing rust from iron, and also in removing old paint from doors and other surfaces which are either to be repainted or otherwise treated.

The composition is especially intended for use in removing paint from soft woods where the surface is readily affected by the strong alkaline compounds commonly used, and which often damage the wood by causing the fibers thereof to rise thereby leaving the cleaned surface in a rough condition.

By the addition of the heavy volatile oil, as in our case, when the compound is applied to the painted surface this oil will protect the wood from the strong corrosive action of the alkaline ingredients, and will leave the surface smooth and ready for the application of a coat of fresh paint.

The emulsion, which is of a tolerably thick consistency, is brushed over the surface to be cleaned and left until it has entirely softened the paint, which it does in a short time, uniting with it and saponifying it so that the whole mass can be easily scraped or washed off, leaving the surface of the wood perfectly smooth. At the same time, owing to its consistency, it does not penetrate the wood so as to prevent a new coat of paint adhering, which is the difficulty with all other paint removing compounds.

The surface, after having been cleaned and the mass scraped or washed off, may be sand-papered, if desired, (though sand-papering is unnecessary,) and is then in condition to receive a new coat. Paint applied to this surface will not blister by exposure to the sun, and is in all respects superior to paint which has been applied to a surface not thus prepared.

It will be manifest that the proportions here stated may be changed without materially altering the character of the compound, and we do not desire to limit ourselves to the exact proportions.

The compound is of a sirupy consistency when made, and when applied it thickens upon the outside to a jelly-like consistency which, while allowing it to take full effect

upon the paint, effectually prevents its entering the wood so as to prevent the surface from taking another coat of paint.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A compound for removing paint and rust consisting of Irish moss, ethylic alcohol, potassium and sodium hydrates, a heavy volatile oil and water mixed and formed into an emulsion.

2. A compound for removing paint and rust consisting of Irish moss, ethylic alcohol, po-

tassium and sodium hydrates, oil of sassafras and water mixed in the proportions herein mentioned to form an emulsion which thickens to a jelly-like consistency when applied, substantially as herein described.

In witness whereof we have hereunto set our hands.

ROBERT W. PFÄFFLE.
GEORGE L. NORTH.

Witnesses:

S. H. NOURSE,
J. A. BAYLESS.