

UNITED STATES PATENT OFFICE.

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PAINT-REMOVING COMPOSITION.

SPECIFICATION forming part of Letters Patent No. 683,177, dated September 24, 1901.

Application filed December 10, 1900. Serial No. 39,352. (No specimens.)

To all whom it may concern:

Be it known that I, PHILLIP J. HOPE, a citizen of the United States, and a resident of Everett, in the county of Middlesex and State of Massachusetts, have invented a certain new and useful Paint-Removing Composition, of which the following is a full, clear, and exact description.

As is well known, one of the most tedious and difficult operations of the painter and decorator is the work of removing the old paint, varnish, shellac, wall-paper, and other adherent surface-coverings preparatory to repainting or otherwise recoating the surfaces. The usual method of accomplishing this has been by burning and scraping off the old paint, &c.; but this, aside from its tiresomeness, danger of fire, and imperfection of operation, injures much of the woodwork by charring its surface and roughing up the fibers by the subsequent scraping. By this process it is never possible to produce a repainted or revarnished surface equal to the original work. Attempts have been made to remove old surface-coatings by means of a solvent applied thereto for the purpose of softening it, and thereby rendering it capable of being scraped off. These solvents have not, however, proved successful, partially because the ingredients composing the solvents were of such a nature as to saponify after being kept for a short time only, and thereby become so hard as to be incapable of use. Thus a can of the solvent if but partially used on one piece of work becomes entirely useless before the next occasion arises therefor. Worse still, such solvents exercised an injurious effect upon the surfaces being cleaned. They did not perfectly soften the paint or other substance, were slow in action, required laborious scraping to wholly clear the surface, and necessitated a repolishing of the cleansed surface in order to fit the same for the subsequent paint or varnish.

The object of my invention is the composition of a solvent for such purposes which shall be entirely free of the above objections, which can be kept in perfect condition for any length of time, which does not necessitate laborious scraping, but will so soften the old material as to permit of its being washed off by means of a sponge and water, which

does not injure the wood surfaces, fully removes every particle of the material to be gotten rid of, and is comparatively inexpensive. All these advantages I have succeeded in obtaining in the solvent forming the subject-matter of this application, the composition of which consists, essentially, of a watery paste of lime and soda-ash having a small quantity of a non-saponifying oil mixed therewith. The materials which I prefer to use for this solvent comprise air-slaked lime, white soda-ash, water, and paraffin-oil, in the following proportions: With three pounds of pulverized air-slaked lime or calcium oxid and three pounds of pulverized white soda-ash I mix sufficient water to form a thin paste of about the consistency of molasses. To this paste I add two liquid ounces of paraffin-oil, stirring the same thoroughly until a complete intermixture is obtained. Kerosene may be substituted for the paraffin-oil; but the latter, being heavier, is much preferable for the purpose, more perfectly protecting the wood surfaces from the injurious action of the soda-ash. The essential condition, however, is that the oil admixed shall be incapable of saponification with the other ingredients.

In use this solvent is applied to the surfaces to be cleansed by means of a vegetable-fiber brush and is allowed to remain thereon for from thirty minutes to one and some times two hours, depending upon the age, thickness, hardness, and other conditions of the paint or varnish. Although it at once hardens, it immediately begins its task of softening the paint or other surface-coating until within the time above mentioned the entire accumulation is brought to a condition of easy removal with a sponge and water. The surface thus cleansed will be found to be smooth and uninjured, not a particle of the old coating left, and ready for the desired new coat of paint or varnish as soon as the surface shall have dried for a short time. I find that the paraffin-oil acts upon the wood to prevent its fibers from roughing up under the action of the water and other ingredients of the mixture. Hence no sand-papering or other finishing is needed to the wood to prepare it for the new paint or varnish.

My solvent can be kept for almost any length

of time without hardening or otherwise deteriorating even if left in an open can.

My solvent is much better than hot water for assisting in the removal of wall-paper for several reasons. In the first place, the action of the water upon the dry paste holding the paper is comparatively slow, and at the same time the water dries out so rapidly as to require a repeated application thereof to the paper. Moreover, the colors are dissolved from the paper and so render the work an exceedingly dirty task as well as a slow one. With my solvent, however, laid on with a broad brush, the work of softening the paste is very quickly done, the entire wall being treated to the solvent and then the scraping carried through to a finish, since but a single application of the solvent is sufficient.

What I claim as my invention, and for which I desire Letters Patent, is as follows, to wit:

1. The herein-described solvent for paint and other coated surfaces, which results from the mixing of air-slaked lime, soda-ash, wa-

ter, and paraffin-oil, substantially as described.

2. The herein-described solvent for paint and other coated surfaces, which results from the mixing of air-slaked lime, and white soda-ash in equal quantities, water forming a thin paste therewith, and a small quantity of paraffin-oil, substantially as described.

3. The herein-described solvent for paint and other coated surfaces, which results from the mixing of air-slaked lime, white soda-ash, water forming a thin paste therewith, and paraffin-oil, in the proportions of three pounds each of the lime and soda-ash, and two liquid ounces of the oil, substantially as described.

In testimony that I claim the foregoing invention I have hereunto set my hand this 3d day of December, 1900.

PHILLIP J. HOPE.

Witnesses:

A. B. UPHAM,
E. E. WAITE.