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POLISHING COMPOSITION

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The present invention relates to a composition adapted to simultaneously clean, polish and wax a surface in a single operation.

enamels chalk, gather dirt and grease, and in general, deteriorate in appearance. It is therefore necessary to clean or to polish these finishes to restore their natural appearance. In addition, it is also desirable to add a protective wax, or the like, so that the elements are unable to attack the enamel surface.

The present composition performs the cleaning, polishing and waxing in one operation. In order to do this, the composition is formed as follows:

	Per cent
Wax or waxes.....	3-22
Plasticizers.....	0- 5
Solvent or vehicle.....	25-75
Adsorbent.....	10-40

The wax referred to forms a film which remains on the surface after the completion of the operation and protects the same from the elements. The plasticizer aids in the final smoothing operation of the wax. The solvent or vehicle assists in applying the wax. Preferably this solvent is such that the wax is only partially soluble therein. This wax solvent also performs another important function. It aids in the removal of grease and the like from the surface being finished. The adsorbent referred to, which is preferably in the form of small particles of a mild abrasive, also performs two functions. It permits a slight burnishing action sufficient to remove chalk or deteriorated enamel and aids in smoothing the surface so that the same will have a lustre on completion of the operation, while at the same time adsorbing excess wax.

Waxes suitable for waxing finishes usually, in addition to the wax, have a carrying vehicle, such as a solvent, a semi-solvent, or in some cases a non-solvent. In the past this type of wax has been extremely laborious to apply because it is impossible to apply the correct amount. Normally too much wax was applied and the removing of the surplus wax is that phase of waxing that results in the labor effort. Furthermore, in order to remove the surplus wax it was necessary to remove the same while solvents were still predominating, or at least not substantially evaporated.

The present composition differs radically from the former waxing compositions in the inclusion of an adsorbent in sufficient quantity in regard to adsorption value to adsorb the surplus wax. The adsorbent also, because of being finely divided, presents a large surface which results in quick evaporation. As a result of this, the present composition may be applied quite liberally and still may be cleaned up readily. The amount of adsorbent to use is determined by a trial method, although once the adsorbent amount is determined any other adsorbent may be used by first determining its adsorbent value and using

At the present time the steps of cleaning, polishing and waxing surfaces, for example surfaces finished in lacquer or oleo-resinous enamel, must be carried out separately. Furthermore the step of applying wax to impart a protective film or seal over the enamel is arduous for a number of reasons. In the first place, the common practice is to apply an excess of wax and to rub the surface to spread the wax evenly thereover and to remove the excess wax. The wax ordinarily is combined with suitable solvent, and during the polishing operation the solvent disappears which renders the wax much more difficult to apply. This practice is so difficult that normally it is largely neglected with the result that the final finishes are damaged by weather.

It is an object of the present invention to provide a composition which may be applied to soiled and deteriorated surfaces, simultaneously cleaning, polishing and waxing these surfaces.

It is a further object of the invention to provide a composition containing wax and an adsorbent.

It is a further object of the invention to provide a composition for applying wax to surfaces in which abrasive particles are contained, these particles serving to assist in polishing the surface and at the same time serving to adsorb the surplus wax.

It is a further object of the invention to provide a cleaning, polishing and waxing composition which contains a solvent for at least partially dissolving the wax and at the same time performing its solvent function in removing gum and the like from the surface.

It is a further object of the invention to provide a composition for waxing surfaces in which a solvent is provided and in which the wax is only partially solvent.

It is a further object of the invention to provide a cleaning, polishing and waxing composition comprising a wax, a solvent and an abrasive in which the abrasive particles serve as an adsorbent for the surplus wax.

Present methods normally require at least two operations; namely, polishing and cleaning by means of a liquid or paste, followed with a protective waxing operation.

In order to have lustre, a surface which is covered with a lacquer or oleo-resinous enamel, or the like, must be relatively flat and devoid of all foreign matter.

Under normal circumstances, enameled articles leave the manufacturers in good condition, with a high lustre and devoid of dirt, chalk or grease, or the like. Upon aging, especially those finishes which are exposed to the elements, the

an equivalent amount as originally found by trial. It is desirable to use an adsorbent that does not mat to facilitate even distribution.

The wax employed may be a vegetable wax, a mineral wax or a mixture of the two. A small percentage of a high boiling solvent-plasticizer is incorporated to facilitate the final leveling action.

The wax plasticizer and the abrasive-adsorbent previously referred to are all dispersed in a solvent, the solvent acting as a vehicle to facilitate application and also to assist in cleaning purposes. The solvents utilized are capable when hot of completely dissolving the wax but are such that upon cooling the waxes are no longer completely dissolved. According to the foregoing, my improved composition is as follows:

	Percent
Hard waxes, (carnauba, candelilla, synthetic, etc.)	2-12
Soft waxes, (paraffine, bee's, jap, etc.)	1-10
Plasticizer, (paraffine, oil, kerosene, etc.)	0-5
Solvent, (mineral spirits, toluol, turpentine, etc.)	25-75
Abrasive, (diatomaceous earth, tripoli, rottenstone, etc.)	10-40
Odorant, (any desired)	0-1
Dye, (any desired)	0-1
Three specific formulae are given for carrying out my invention:	

Example 1

	Percent
Carnauba wax	6.03
Paraffine wax	5.14
Paraffine oil	2.23
Mineral spirits	64.20
Finely divided diatomaceous earth	22.33
Odorant	.064
Green dye	.006
	100.000

Example 2

	Percent
Candelilla wax	8.95
Paraffine wax	7.50
Kerosene	3.34
Mineral spirits	46.96
Diatomaceous earth	21.20
Burnt umber	12.05
	100.00

Example 3

	Percent
Carnauba wax	2.65
Bee's wax	2.03
Paraffine wax	1.98
Light mineral oil	1.39
Mineral spirits	35.80
Tripoli	56.15
	100.00

In the manufacture of my improved composition any suitable procedure may be used in mixing the ingredients together, except that suffi-

cient heat must be employed to completely dissolve the wax. Preferably the wax and plasticizer are heated together until molten, after which the solvent is added gradually while agitating. During this step the temperature is maintained sufficiently to keep the wax in solution; a temperature such as 150° F. being suitable. To this solution is added the adsorbent-abrasive and the entire mass is then agitated until uniform. If desired, a perfume or a dye, or both, are added and dispersed by means of agitation. The product is now ready for filling, the filling operation being performed at a temperature of about 150° F. Upon cooling the mass will form a firm cake suitable for use by the consumer.

I have found that my improved composition gives results at least as good as those previously obtained in two separate operations; namely, a cleaning and subsequent waxing operation. I attribute the efficiency of my composition largely to the use of the abrasive adsorbent, and I find that while a desired coating of wax is applied to the surface the excess wax is readily removed due largely, I believe, to the adsorbent properties of the abrasive.

When the composition is first applied the solvent dissolves or loosens dirt, grease, oil, bugs, etc. The abrasive permits a slight burnishing action which removes chalk or deteriorated enamel and at the same time restores the enamel surface to its original smooth characteristic. The wax is spread evenly over the cleaned and burnished surface and the excess wax, being adsorbed by the abrasive-adsorbent is readily removed.

The composition disclosed herein performs in a single operation that which previously has been performed in two or more operations, and in addition the labor necessary to provide a predetermined thin film of wax is substantially reduced. The foregoing detailed description has been given for clearness and understanding only, and no unnecessary limitation should be understood therefrom, but the appended claims should be construed as broadly as permissible in view of the prior art.

What I claim as my invention is:

1. A cleaning, polishing, and waxing composition forming a firm cake at normal temperatures and useful in treating enamel surfaces composed essentially of about 13% wax and plasticizer, 65% wax solvent, and 22% of an abrasive-adsorbent.

2. A cleaning, polishing, and waxing composition forming a firm cake at normal temperatures and useful in treating enamel surfaces composed essentially of about 13% wax and plasticizer, 65% mineral spirits, and 22% of an abrasive-adsorbent.

3. A cleaning, polishing, and waxing composition forming a firm cake at normal temperatures and useful in treating enamel surfaces composed essentially of about 13% wax and plasticizer, 65% mineral spirits, and 22% of diatomaceous earth.

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