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PACKAGED BUFFING COMPOUND

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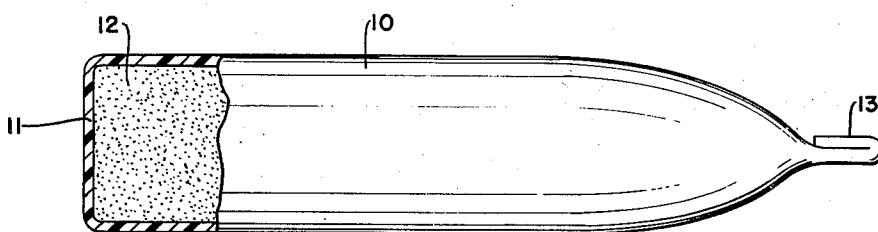


FIG. 1

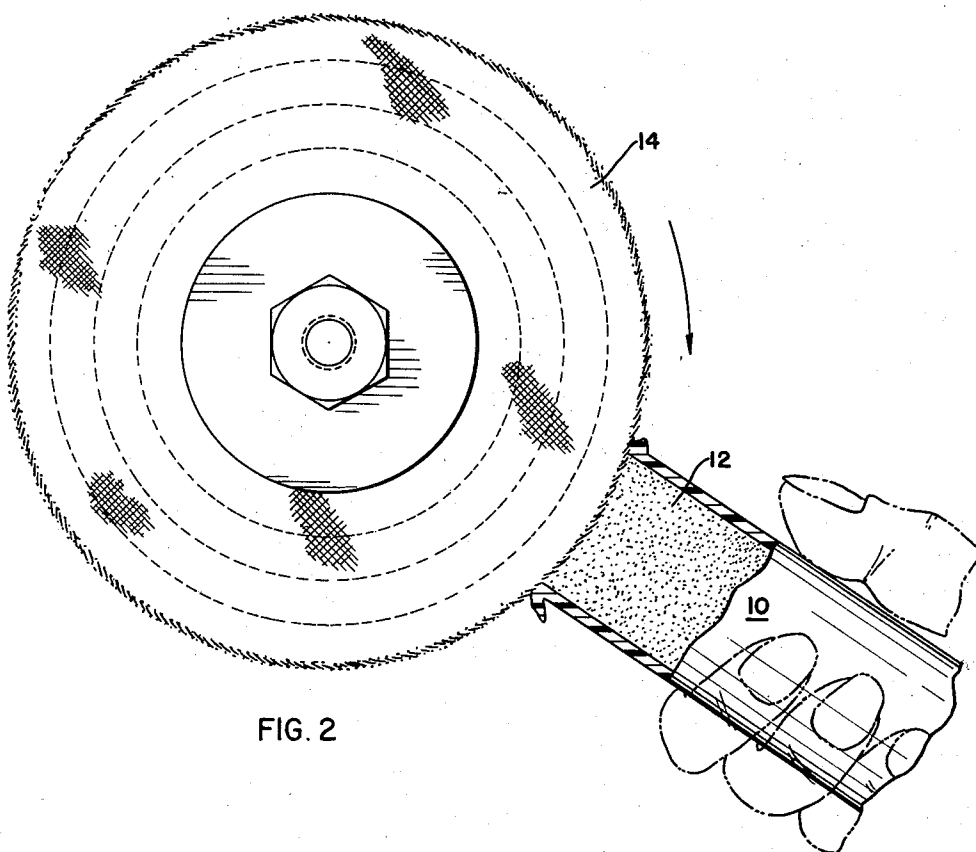


FIG. 2

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PACKAGED BUFFING COMPOUND

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4 Claims. (Cl. 51—295)

The present invention relates to packaged buffing compounds, and more particularly to an improved package comprising a buffing compound in ready-to-use stick form and a dirt and moisture-impermeable, protective casing of a type adapted to shred away from the compound stick as the latter is used.

In buffing operations, it is common to employ a rotating buffing wheel, formed of cloth or other soft material, to which an abrasive compound is applied. A workpiece is held against the rotating wheel, and as the operation progresses the compound wears off of the wheel and must be periodically replaced. To facilitate the replacement, it is common to furnish buffing compound in the form of a stick or bar so that the compound may be applied by pressing the bar against the surface of the rotating wheel.

Various types of stick form buffing compounds, such as glue-base compounds, lime bars, and compounds formed of abrasives which are highly classified as to size, require special covering means for preserving and/or protecting the compound during shipping, storage and/or use.

Glue-base compounds, for example, comprise fine particles of abrasive suspended in a glue base or vehicle. The compound is in solid form, for convenient packaging in the shape of a stick or bar, and will melt and flow onto the surface of a rotating buffing wheel when applied thereto. Heretofore, serious difficulties have been encountered in connection with the use of glue-base buffing compounds, in that the moisture content of the compound must be maintained at all times within extremely close limits, in order that the compound may be properly applied to the wheel. A slight increase in the moisture content of the compound renders it soft and unmanageable while a slight decrease in moisture content causes the compound to become excessively hard.

Accordingly, it has been common practice to encase a stick-form glue-base compound in a sheath, such as an aluminum or lead foil tube, for example, or spirally wrapped cardboard lined with aluminum foil, so that the bar is sealed during shipping and storage. Such arrangements are not entirely satisfactory, however, in that the sheaths are not always sufficiently moisture-proof, are readily damaged in shipping and handling, and must be manually peeled back as the bar of compound is consumed.

Lime bars, which are basically comprised of a mixture of burnt lime (calcium oxide), with greases, such as stearic acid, tallow, glycerides and petrolatum, must be packaged in such form that moisture is substantially entirely excluded therefrom. Otherwise the lime slakes, and the bars are unusable. Accordingly, the practice, heretofore, has been to package lime bars in tin cans, which are expensive and otherwise undesirable.

Other types of buffing compounds, such as those using highly classified abrasives, must be carefully protected from dirt and other foreign matter prevalent about factories and workshops. Such compounds have therefore

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been packaged in paper cartons or bags, which are not completely satisfactory since they are easily damaged and do not cling closely to the sides of the bars.

The present invention provides an improved package comprising a bar of buffing compound, of a type which is unstable or damageable or subject to deterioration when exposed to normal working conditions, and a sealed tubular sheath or encasement of solid polyethylene or equivalent plastic material. The plastic sheath clings closely to the surfaces of the bar of compound and is substantially impermeable to moisture and foreign particles, so that the desired moisture content of the compound is effectively maintained, and adequate physical protection is provided during shipping, storage and use. In addition, the plastic sheath need not be peeled from the stick as it is consumed, but is of such a nature that it will progressively expose the compound as it is used.

One of the most important aspects of the invention resides in the fact that, in the new package, the plastic sheath will neither mix with the buffing compound nor adhere to the wheel, but will shred off and drop away from the bar, to expose new portions thereof, when the package is applied to a moving buffing surface. Thus, while attempts have been made, heretofore, to provide bars of buffing compound with a coating which would wear away to expose new portions of the bar, all such arrangements, insofar as we are aware, provide coating which melt and mix with the compound and/or adhere to the buffing surface. Moreover, our experience has demonstrated that coatings made in accordance with the teachings of the prior art are not, in fact, entirely satisfactory for their intended purpose, in that there is a tendency for the coatings to become cracked with age, even in the absence of handling, so that the compounds intended to be protected thereby are exposed to the atmosphere.

For a better understanding of the invention, reference may be made to the accompanying drawing, in which:

Fig. 1 is a side elevation of the new buffing compound package, with parts broken away; and

Fig. 2 is a fragmentary view, with parts broken away, illustrating the manner in which the compound of the new package is applied to a buffing wheel.

In Fig. 1, the reference numeral 10 designates a generally tubular casing or sheath formed of a polyethylene or other plastic material having similar properties. The sheath 10 is closed at one end by a flat wall 11 and is initially open at its other end. The complete package includes a buffing compound 12, which may be a glue-base compound, lime bar, classified abrasive compound, or other compound which requires protection against moisture variation, dirt, etc.

Advantageously, the compound is prepared in a liquid form and is poured into the open end of the sheath 10. The compound is then allowed to solidify in the form of a bar, within the sheath 10, and the open end of the sheath is sealed, as at 13, by the application of heat or by any other suitable means.

After sealing of the sheath 10, the package may be shipped and stored for long periods of time without substantial change in the moisture content of the compound 12. The sheath 10 also provides physical protection for the compound stick, to prevent damage thereto during handling and shipping, and to keep the stick free of dirt and foreign particles during use.

In order to utilize the compound 12, the package is held in the hand and the end wall 11 is pressed against a rotating buffing wheel 14. The friction of movement of the wheel 14 over the wall 11 causes the plastic material of the sheath to shred away and expose the end of the compound stick. The wheel 14 then rubs directly on the compound 12 causing it to melt and flow onto the

surface of the wheel in the manner desired. The stick is thereby worn away, and as this occurs the surface of the wheel bears against the side walls of the sheath 10 causing the sheath material to shred away, exposing new portions of the compound.

The material forming the sheath 10 is not only moisture impermeable, but is tough and resilient, whereby substantial protection is afforded the compound during handling and use, and the sheath remains intact, even when dropped or mishandled, so that the compound is not prematurely exposed to the atmosphere or to foreign particles. Moreover, the nature of the sheath material is such that it closely conforms with the side surfaces of the compound bar to prevent exposure of such surfaces to the air and to prevent the entry of foreign particles between the sheath and the compound when the package is in use.

One of the most important and unexpectedly advantageous features of the new package resides in the fact that the sheath material is shredded away by friction, upon application of the package to a rotating buffing wheel, to continually expose new portions of the buffing compound, and does not intermix in any way with the compound or adhere to the surface of the wheel.

The invention makes practicable the manufacture of glue-base buffing compounds, lime bars and classified abrasive compounds in stick or bar form and in a truly ready-to-use condition. And, in this respect, while the above described compounds have heretofore been provided in stick form, it has been necessary to provide sheaths such as aluminum or lead foil tubes, spirally wrapped cardboard lined with aluminum foil, tin cans and the like, which are unsatisfactory, expensive, or both. Where attempts have been made to provide a coating adapted to be melted or worn down by the buffing wheel it has been found that the coating mixes with the buffing compound and/or adheres to the wheel, and, in some cases, forms a gummy coating on the buffed surface, which detracts materially from the appearance of the finished product.

This application is a continuation-in-part of our co-

pending application Serial No. 569,314, filed March 5, 1956, for "Packaged Buffing Compound" now abandoned.

We claim:

1. A buffing compound package comprising a bar of buffing compound of a type which is subject to damage or deterioration upon unprotected exposure, and a sealed tubular encasement of solid, tough, resilient polyethylene surrounding said bar and forming a moisture-impermeable encasement which clings in direct contact with said bar, said encasement being removable by friction upon application of the package to a moving buffing surface and having properties causing it to shred away from the compound and buffing surface when so removed to expose new surfaces of the compound at the end of the bar without intermixing therewith or adhering to the buffing surface and without exposing or separating to any substantial extent from the sides of the bar.
2. A buffing compound package according to claim 1, wherein said compound is a glue-base compound comprising abrasive particles suspended in a glue vehicle and having a relatively critical moisture content.
3. A buffing compound package according to claim 1, wherein said compound includes calcium oxide and is subject to slaking upon contact with moisture.
4. A buffing package according to claim 1, wherein said compound comprises abrasive particles which are highly classified as to size and are subject to contamination.

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