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CLEANER FOR FURS AND THE LIKE AND PROCESS OF CLEANING

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This invention relates to a cleaning preparation for furs and analogous articles and to a process and method of using the same.

Wearing apparel and other articles constructed from fur cannot be properly cleaned by liquid re-agents in the same manner as textiles or fabrics.

It is an object of my present invention to provide a simple, inexpensive and highly efficient cleaner for furs and the like which will work its way into the hair of the fur, which will not damage the fur or linings of the clothing or other articles cleaned and which is not in essence a liquid, but compries a multiplicity of independent comparatively smooth particles loaded or saturated with liquid cleaning re-agents, and in such condition having high specific gravity whereby the particles will work themselves into the hair of the fur, thoroughly rubbing, frictionally engaging the same and removing dirt, grime and grease therefrom.

It is a further object to provide a process for cleaning furs and the like wherein the fur articles are covered with finely divided solid particles containing liquid cleaning re-agents and wherein the fur articles are tumbled in a chamber to cause the particles to move about working into the fur, frictionally engaging the hairs thereof and thereby removing dirt and grease.

Such a process requires a material which will have absorbtive properties for the liquid cleaning re-agents, usually carbon tetrachloride, naphtha, Stoddard's solvent and the other well known liquid cleaning re-agents. It is also essential that the particles when loaded or saturated with material will have a relatively high specific gravity in order that they may rapidly move about or slip between the hairs of the fur, frictionally engaging the same when the article is tumbled. Another essential is that the cleaning preparation or particles containing the re-agent shall have no sharp or jagged edges which will adhere or fasten upon the hairs of the fur or cut and injure the lining of the garments or the fur itself.

After exhaustive research work I have discovered that particles of corn-oil-cake meal, a by-product in the manufacture of corn starches and corn sugar, is highly desirable from every standpoint for the purposes above enumerated. This substance or ingredient is in reality the heart or germ of the corn when the sugar and starches and oil are extracted. It is an amorphous product and may be obtained very cheaply from corn starch and sugar manufacturers. The said product is substantially free from oil, containing only one-fourth of one per cent of oily ingredients and is furthermore hard and has no well defined lines of cleavage and the small particles will not disintegrate easily. The said by-product is obtained commercially in the form of small particles and these are screened, particles of a desired size being retained. I have found that particles of such size that about sixty per cent of a mass will be retained on a screen of 60 standard mesh and twenty-five per cent retained on a screen of 40 standard mesh are highly effective for the purposes intended. However, I do not wish to be limited to particles of this size. The individual particles, under microscopic examination are found to be of various irregular shapes, all, however, having curved relatively smooth edges free from sharp points or jagged projections. Said particles furthermore have a considerable degree of thickness relatively to the width and length thereof.

I have found that these particles of corn-oil-cake meal have very high absorbtive properties for most liquids, including carbon tetra-chloride, naphtha, Stoddard's solvent and most distillates of petroleum which are obtained at relatively low temperatures. One hundred grams of dry corn-oil-cake meal will absorb between 350 and 400 grams of carbon tetra-chloride, naphtha, gasoline or Stoddard's solvent.

It therefore follows that when the particles are loaded or saturated with liquid cleaning re-agents of the class described, the specific gravity of the preparation will be comparatively high and the particles will move about readily slipping in and out between the hairs of the fur and working their way inwardly toward the hide or pelt of the fur.

In preparing my cleaner, the commercially obtained corn-oil-cake meal is strained through proper sieves and the desired size of particles removed. To the mass obtained, it is usually desirable to add a relatively small amount of perfume or deodorant of any suitable type and concentrated oils having deodorant and perfuming properties are usually mixed with or thinned out with alcohol and thoroughly mixed with the dry corn-oil-cake meal. A mixing machine is preferably utilized.

The comparatively dry product may then be put up in containers for sale and when it is desired to utilize the product, the particles are saturated with liquid cleaning re-agents, such as carbon tetra-chloride, naphtha, Stoddard's solvent, gasoline and the like and the saturated particles are then spread or sprinkled over the fur and the fur placed in a suitable chamber having means associated therewith for tumbling the fur articles. The tumbling action causes the particles to move about through the fur, penetrating the same, frictionally engaging the individual hairs to remove grease, grime and dirt. The particles are relatively heavy and aided by gravity and the tumbling movement of the articles, quickly engage all parts of the fur. Since the particles themselves, as well as the material with which they are impregnated are not adhesive, and since further the particles have no sharpened or jagged edges, they will not adhere to the hairs or lining of a fur garment. It further will be seen that due to the relative thickness of the particles and lack of jagged edges, the linings and other delicate fabric used in fur garments will not be cut during the process of cleaning.

From the foregoing description it will be seen that I have provided an inexpensive and highly efficient cleaning preparation for furs and the like adapted to be easily manufactured and utilized and which is successful for efficiently cleaning fur articles without immersing or subjecting the same to liquid re-agents.

My cleaner has been demonstrated in extensive actual usage and it has been found that a full size caracul coat may be thoroughly cleaned in three minutes by the use of my preparation with conventional tumbling apparatus widely used at this time by most dry cleaners.

It will of course be understood that I do not limit myself to the use of corn-oil-cake meal particles of any specific size or shape or to the use with said particles of the specific liquid cleaning re-agents mentioned herein. It is also understood that while a small amount of deodorant or perfume is preferably utilized with my preparation, that the same may be omitted if desired.

Where hereafter in the claims the words "liquid cleaning re-agent" are used, the same shall be construed to include carbon tetrachloride, naphtha, Stoddard's solvent, gasoline and the other distillates of petroleum which are commercially used as cleaning re-agents, as well as mixtures of any of the said ingredients above set forth.

What is claimed is:—

1. A cleaning preparation for furs comprising a multiplicity of corn-oil-cake meal particles, each having considerable thickness relative to the width and length thereof and being free from sharp and jagged edges, said particles being impregnated with a liquid cleaning re-agent.

2. The method of cleaning furs which consists in spreading over the fur a multiplicity of small ground particles of corn-oil-cake meal, agitating said furs and particles, whereupon the natural shape and characteristics of said particles cause the same to quickly work in to the leather of the fur and to then work outwardly frictionally engaging the hair of the fur and removing dirt therefrom.

3. The method of cleaning furs which consists in spreading over the fur a multiplicity of small particles of corn-oil-cake meal, which have been impregnated with a liquid cleaning re-agent, agitating said furs and particles, whereupon the natural shape and characteristics of said particles cause the same to quickly work in to the leather of the fur and to then work outwardly frictionally engaging the hair of the fur and removing dirt therefrom.

4. A cleaning preparation for furs comprising corn-oil-cake meal ground and sorted to constitute a multiplicity of loose solid particles which have irregular, relatively smooth edges and which have considerable thickness relative to the width and length thereof and of a size whereby substantially 60% of a mass will be retained on a screen of 60 standard mesh, said particles containing less than one-half of one per cent of oily ingredients.

In testimony whereof I affix my signature.

WALTER G. HAERTEL