Patented Apr. 8, 1952

2,591,663

UNITED STATES PATENT OFFICE

2,591,663

METHOD OF CLEANING FURS

Nathan Root, Grand Rapids, Mich.

No Drawing. Application May 27, 1948,
Serial No. 29,660

3 Claims. (Cl. 8—142)

1

This invention relates to a process of cleaning fur pelts and garments fabricated therefrom as well as to an element employed in effectuating the process.

The present day conventional process of cleaning fur garments is to place the same in a revoluble drum together with a predetermined amount of sawdust in bulk form, the sawdust being impregnated with a suitable solvent, and by rotating the drum the sawdust is brought into contact with the garments by the tumbling action thereby resulting. Following this step the furs must be freed of residual sawdust imprisoned between and on the hairs of the pelt by shaking the garments in another or the same drum by a second tumbling stage.

The foregoing procedure is time-consuming, not only in requiring a relatively long time to permit the individual particles of sawdust to do their work, but in shaking or beating out the sawdust. Notwithstanding a vigorous tumbling, some sawdust may remain entrapped in the fur and must be manually combed, vacuumed or blown out. Frequently free sawdust works inside the lining through holes and openings therein, which often requires opening of the lining for its removal. Additionally the cleansing action imparted by the loose sawdust leaves much to be desired.

So-called "Mouton," i. e. shorn lamb, is particularly difficult to clean by present day methods. Its density renders the removal of the residual sawdust extremely difficult. Persian lamb is another fur causing considerable difficulty due to the tightly curled character of the hairs. These and other furs often require beating, rubbing, blowing, vacuuming and other painstaking methods, all of which are deleterious and hence undesirable.

My invention has for its principal objects the provision of a fur-cleaning method which dispenses with the use of sawdust in bulk, is efficient in its cleaning action, is harmless to the fur, requires considerably less time and manual steps than prior processes, and dispenses with the need of removing residual sawdust following the cleaning operation.

I have found that the most effective cleaning of the skin and hairs is the result of a wiping action thereon. That is to say, the most desirable process would reside in the provision of means and a method whereby such wiping action could be effected in a gentle, yet thorough, manner, and desirably eliminate the later shaking out of the sawdust, which step is injurious to weak pelts and time-consuming.

2

Having the foregoing desiderata in view, my process generally contemplates the inclusion in the drum, with the fur garments, of a plurality of bags or open-meshed fabric loosely filled with sawdust, the bags and sawdust having been impregnated with a suitable fur-cleaning solvent, and then tumbling the furs and bags together for a predetermined interval. It will be understood from what follows that the garments themselves are not enclosed in the bags but are agitated jointly therewith in the drum, the garment being thus unconfined except for the walls of the drum. Thus all portions of the garment are free to take up different positions during agitation to insure thorough contact thereof by the bags.

Such bags are preferably made of several sizes and shapes in order to provide a varied cleaning action. Thus specific parts of the garment, such as trim, may be contacted by small bags and the generally larger flat areas contacted by larger bags, and some bags of each of the several sizes are included with each batch of garments constituting a single machine load. A suitable fabric for the bags has been comprised of so-called waffle-weave cotton characterized in that it is a ribbed fabric with the ribs arranged in a waffle pattern which is porous and the bag, after being stuffed with sawdust of requisite type and fineness, is sewed closed. This preferred material is sometimes known in the dry-cleaning trade as "sponge cloth" and is characterized by having a comparatively great degree of absorbency. The sawdust may be what is commercially known as fine cube cut sawdust. Care must be taken that the fabric mesh is sufficiently open and the material of the thread used such as to permit the solvent to be expressed therethrough at the proper rate, but not so open or porous as to allow the particles of sawdust to sift therethrough.

Before each use the filled bags are immersed in a preferred fur-cleaning solvent, whereby the sponge-like or absorbtive action of the comminuted mass of sawdust is effective to load the bag with the desired volume of solvent without dripping. Such condition may be spoken of as super-saturation.

When the furs and thus-prepared bags are tumbled together in the drum, the hairs are given a stroking action, the roughness of the fabric being in the nature of a fine brush of substantial area and the solvent being constantly delivered to the hairs and skin by the agitation of the bag and the shifting of the sawdust therein occasioned by the tumbling movement. Moreover, the solvent adds substantially to the weight of the bag whereby the stroking action is performed

with a degree of pressure not inherent in sawdust tumbled loosely in bulk with garments. Shifting of the bags and the sawdust therewithin moves the hairs back and forth to cause the solvent to be applied along the full depth of the hairs and against the skin, the stroking action thus being effective over the pelts as a whole. The tumbling of the bags also imparts a mild beating action which softens the hairs as they are cleaned.

Moreover, matted areas of hair are broken up so that the entire surface of the garment is efficiently rejuvenated. Additionally the lining of the garment, including that of the sleeves and pockets, may obtain a full measure of cleansing action since it is within the scope of the invention to insert some bags into the sleeves, pockets and other places difficult of access by prior processes. Such bags are free to slide thus to apply the solvent in an efficacious manner. When using free sawdust, as in prior processes, no similar action occurs, due principally to the lack of wiping pressure.

If desired a glazing formula may be combined with the solvent so that glazing and cleaning are accomplished simultaneously.

The invention is not intended to be limited to fabric bags or to sawdust since other materials for the bags having the desired porosity or even osmotic capacity may be employed, together with comminuted materials of absorptive powers equivalent to wood sawdust. Furthermore, the contents of the bag may comprise fragments of absorptive material of other desirable average size, not necessarily as finely comminuted as sawdust.

The bags including the sawdust are not exhaustible since they may be soaked in solvent after each use to eliminate the soil entrapped therein and thereby rendered immediately ready for re-use. Present cleaning methods using bulk sawdust require that the sawdust be disposed of after each use or after several uses with consequent expense not only in the cost of sawdust but of solvent. To remove soil from bulk sawdust is obviously impractical. Thus the practice has been to use the sawdust a few times and then to discard the same. My invention avoids this wasteful procedure.

Inasmuch as the sawdust is at all times confined in closed bags no loose sawdust need be removed from the garments, with consequent substantial saving of time. Furthermore, no need exists for opening of the lining to clear out sawdust lodged therebehind.

Even curly furs, such as Persian lamb, respond well to my process since the brush-like action of the rough weave of the bags is sufficient to open and redistribute the curls to an extent permitting proper cleaning action to occur.

While I have shown particular embodiments of my invention, it will be understood, of course, that I do not wish to be limited thereto since many modifications may be made, and I therefore contemplate by the appended claims to cover any such modifications as fall within the true spirit and scope of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. The method of cleaning a fur garment comprising the steps of introducing a fur garment and a plurality of small flexible bags into a chamber, each of said flexible bags consisting essentially of a fluid-pervious, relatively soft textile fabric cover having confined therein a comminuted and fluid-absorptive solid material which is partially saturated with a fur-cleaning fluid, said fluid contained in said bags being the only fluid present in the chamber during said cleaning operation, agitating said garment and bags in intimate contact within said chamber so that small quantities of fur-cleaning fluid are expelled from the bags, and removing said garment from said chamber at the completion of the cleaning agitation.

2. The method of claim 1 wherein the comminuted and fluid-absorptive solid material confined in the flexible bag is sawdust.

3. The method of claim 1 wherein the textile fabric cover of the flexible bags comprises a waffle weave cotton fabric.

NATHAN ROOT.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
768,938	Guyon	Aug. 30, 1904
1,100,436	Lungstras	June 16, 1914
1,378,931	Adler	May 24, 1921
1,747,324	Savitt	Feb. 18, 1930
1,902,232	Haertel	Mar. 21, 1933
1,987,130	Shapero	Jan. 8, 1935