Dec. 21, 1954 G. W. BROWN 2,697,512

EQUIPMENT FOR RENOVATING PILLOW FEATHERS

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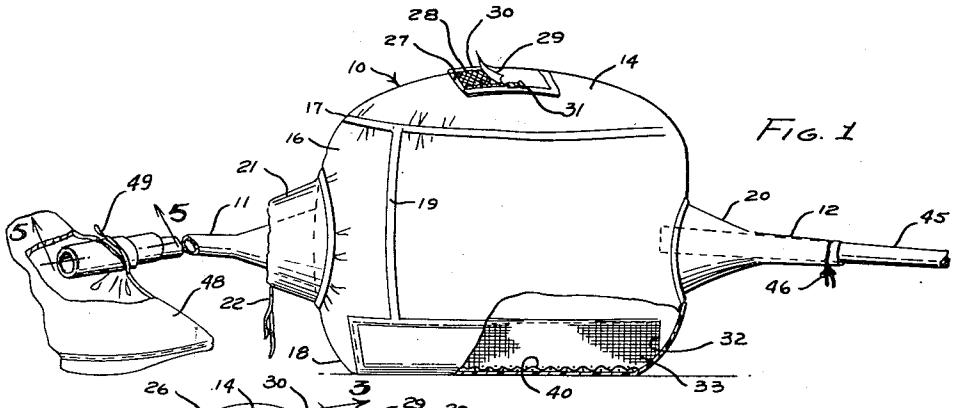


FIG. 1

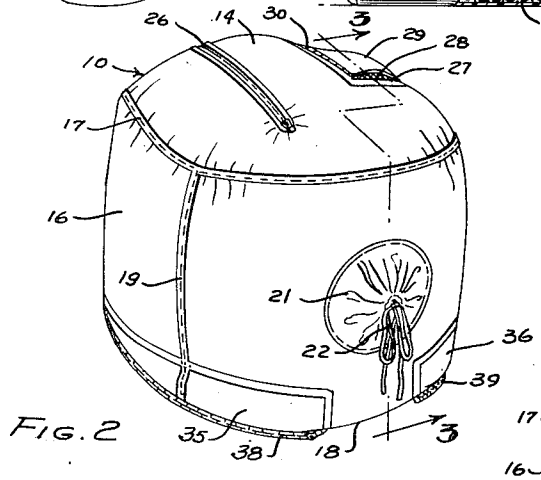


FIG. 2

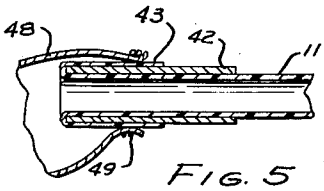


FIG. 5

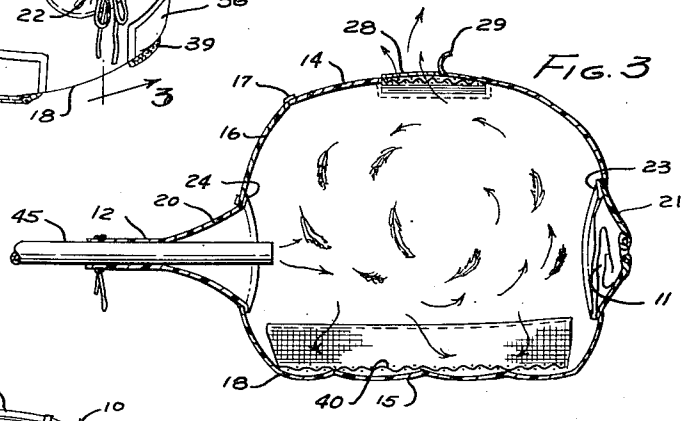


FIG. 3

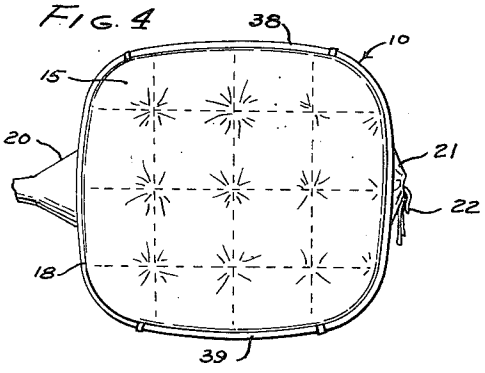


FIG. 4

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EQUIPMENT FOR RENOVATING PILLOW FEATHERS

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2 Claims. (Cl. 209—28)

This invention relates to equipment or apparatus for renovating pillow feathers and more particularly to such equipment designed for use with a domestic vacuum cleaner.

It is among the objects of the invention to provide improved feather renovating equipment which can be used with a domestic vacuum cleaner to remove dust and debris from pillow feathers, refluff the feathers and place them in a pillow tick; which utilizes the same receptacle for cleaning the feathers and for holding the clean feathers while they are blown into a pillow tick; which is foldable to a compact condition for storage or transportation; and which is simple and durable in construction, economical to manufacture, easy to use, and effective and efficient in use.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawing wherein:

Figure 1 is a side elevational view of a feather renovating equipment illustrative of the invention;

Figure 2 is a perspective view of the equipment illustrated in Figure 1;

Figure 3 is a cross sectional view on the line 3—3 of Figure 2;

Figure 4 is a bottom plan view of the equipment; and

Figure 5 is a fragmentary cross sectional view on an enlarged scale on the line 5—5 of Figure 1.

With continued reference to the drawing, the equipment comprises a bag-like receptacle, generally indicated at 10, formed of flexible, air impervious sheet material, such as a synthetic resin or synthetic rubber sheet material or a rubberized fabric material, and tubes 11 and 12 extending from respectively opposite ends of the receptacle in communication with the interior thereof.

The receptacle 10 has a top wall 14 of somewhat elliptical shape, a bottom wall 15 of similar shape and an annular side wall 16 joined at its top and bottom edges to the top wall 14 and the bottom wall 15 by seams 17 and 18 respectively, and having its ends joined together by a seam 19 extending transversely of the side wall. The side wall is provided with openings of substantially circular shape, one at each end of the receptacle, and a funnel shaped extension 20 is secured at its larger end to the side wall around one of these openings and is extended at its smaller end to provide the vacuum cleaner hose receiving tube 12. A similar funnel shaped extension 21 is secured at its larger end to the side wall around the other opening in the side wall and is extended at its smaller end to provide the tube 11. A drawstring 22 is provided in a seam extending around the funnel shaped extension 21 intermediate the length of this extension, so that, with the tube 11 disposed inside the extension the drawstring can be drawn to close the extension at the location of the drawstring and provide an airtight closure for the corresponding opening in the side wall of the receptacle. The connections between the extension 20 and 21 and the side wall 16 of the receptacle are reinforced by bindings, as indicated at 23 and 24, respectively, and the seams between the top and bottom walls of the receptacle and the side wall, as well as the seam connecting the ends of the side wall are also reinforced by suitable bindings, such as bias tape, to prevent separation of the wall portions of the receptacle along the seams.

The top wall 14 is provided with an elongated slit or opening extending longitudinally thereof and with a slide fastener 26 secured to the top wall at respectively opposite sides of this opening and effective to close the opening. The opening closed by the slide fastener 26 is used for dumping feathers to be renovated from a pillow tick into the receptacle 10, and is closed after the feathers have been placed in the receptacle and maintained closed during the cleaning of the feathers and the discharge of the feathers from the receptacle into a pillow tick.

The top wall 14 is also provided with an air outlet opening 27 of rectangular shape covered by a flexible screen 28, such as the synthetic resin plastic screen material used for providing window screens in tents and similar structures, and is also provided with a flap 29 for closing the opening 27 and slide fasteners 30 and 31 secured to the top wall at respectively opposite sides of the opening 27 and to respectively opposite side edges of the flap 29 in closing relation to the opening 28. Adjacent the bottom wall 15 and at respectively opposite sides of the bottom wall, the side wall 16 is provided with openings, as indicated at 32, of elongated rectangular shape which openings are covered by screens, as indicated at 33, of the same material as the screen 28. Flaps 35 and 36 are secured to the side wall of the receptacle in closing relationship to the bottom openings, but each flap has one free edge to provide an exhaust opening for air leaving the interior of the receptacle through the screened bottom openings. Slide fasteners 38 and 39 are secured to the bottom edges of the flaps 35 and 36 respectively, and to the corresponding edges of the bottom wall 15 of the receptacle and are effective to close these bottom openings in the receptacle by holding the corresponding flaps over the openings while feathers are being driven by compressed air out of the receptacle and into an associated pillow tick.

A piece 40 of the same screen material overlies the bottom wall 15 of the receptacle interiorly of the receptacle, and the bottom wall is secured to this screen 40 marginally of the screen and also over the area of the screen in a grid-like pattern to provide pockets between the screen 40 and the bottom wall 15 of the receptacle for the reception of heavier material removed from the feathers during the renovating process.

A metal sleeve 42 of a length materially less than the length of the extension tube 11 receives an intermediate portion of this tube and the end portion of the tube 11 is turned back over the adjacent end portion of the metal sleeve 42, as indicated at 43, to provide a smooth, non-cutting end at the outer end of the metal sleeve 42. The sleeve 42 renders the corresponding end portion of the flexible tube 11 noncollapsible for a purpose to be presently described.

In the use of the device, with the tube portion 11 of the extension 21 disposed within the funnel shaped portion of this extension and the drawstring 22 drawn to close the extension 21, a vacuum cleaner hose 45 is inserted at its outer end through the extension tube 12 and this extension tube is firmly secured to the vacuum cleaner hose by a wrap-around string 46. The other end of the hose 45 is connected to the discharge end of the associated vacuum cleaner, so that air will be blown from the vacuum cleaner into the receptacle 10. The screened openings in the receptacle are now opened by opening the corresponding slide fasteners and the slide fastener 26 is opened and feathers to be renovated are dumped from a pillow tick through the opening provided by opening the slide fastener 26 into the receptacle. The slide fastener 26 is then closed and the vacuum cleaner placed in operation to blow air into the receptacle 10, and out of the receptacle through the screened openings in the receptacle, removing the dust and debris from the feathers and whirling the feathers around in the receptacle until they are refluffed and renovated.

After the feathers have been cleaned for a sufficient length of time, the screened openings in the receptacle 10 are closed, the drawstring 22 is loosened, and the tube 11 drawn out of the extension 21 and inserted into an opening in one end of a pillow tick 48, the sleeve 42 being disposed in the opening in the pillow tick and the material of the pillow tick around the opening therein being secured to the tube 11 by a wrap-around string 49. The rigidity of the sleeve 42 prevents the string 49

from collapsing the tube **11** at this location. The vacuum cleaner is now again placed in operation and the renovated feathers are blown from the interior of the receptacle **10** through the extension **21** and tube **11** into the pillow tick **48**, thereby refilling the pillow tick. After the feathers have been blown from the receptacle into the pillow tick, the tube **11** is removed from the pillow tick and the opening in the pillow tick closed. The hose **45** is now removed from the extension tube **12** of the receptacle and, after being reconnected to the intake end of the associated vacuum cleaner, is used to clean the interior of the receptacle through the opening provided by the slide fastener **26**. After the use of the equipment has been completed, the receptacle **10** and associated extension tubes can be folded into a compact condition for storage or transportation.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. Equipment for use with a domestic vacuum cleaner to renovate pillow feathers comprising a receptacle of flexible and air impervious sheet material having a closable feather receiving opening and at least one screened opening therein for the discharge of air while feathers are being cleaned in the receptacle, means for closing said screened opening when feathers are to be blown from said receptacle into a pillow tick, a first tubular extension secured at one end in the wall of said receptacle in communication with the interior of said receptacle and adapted to receive the distal end of a hose connected to the air discharge of a domestic vacuum cleaner, a second tubular extension connected into the wall of said receptacle at a location spaced from said first tubular extension and adapted to be inserted through an opening in a pillow tick to convey feathers from said receptacle into an associated tick, and means for preventing the discharge of air through said second tubular extension when feathers are being cleaned in said receptacle.

2. Equipment for use with a domestic vacuum cleaner to renovate pillow feathers comprising a receptacle of flexible and air impervious sheet material having a closable feather receiving opening and at least one screened opening therein for the discharge of air while feathers are being cleaned in the receptacle, means for closing said screened opening when feathers are to be blown from said receptacle into a pillow tick, a first tubular extension secured at one end in the wall of said receptacle in communication with the interior of said receptacle and adapted to receive the distal end of a hose connected to the air discharge of a domestic vacuum cleaner, a second tubular extension connected into the wall of said receptacle at a location spaced from said first tubular extension and adapted to be inserted through an opening in a pillow tick to convey feathers from said receptacle into an associated tick, and means for preventing the discharge of air through said second tubular extension when feathers are being cleaned in said receptacle, said receptacle having a top wall provided with an elongated feather receiving opening and a slide fastener for closing said opening, a side wall provided with at least one screened opening for the discharge of air from said receptacle, a flap secured to said side wall in position to close said screened opening, and a slide fastener secured to said flap and said receptacle for holding said flap in position to close said screened opening, a bottom wall, and an inner wall of flexible screen material superimposed on the inner surface of said bottom wall, said bottom wall being secured to said inner wall in a grid-like pattern to provide pockets between said inner wall and said bottom wall for receiving heavy material removed from feathers cleaned in said receptacle.

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