US 20040231084A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0231084 A1**

McKenzie (43) **Pub. Date: Nov. 25, 2004**

(54) **SEAM AND TUFT TOWELS**

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(21) Appl. No.: **10/441,484**

(22) Filed: **May 20, 2003**

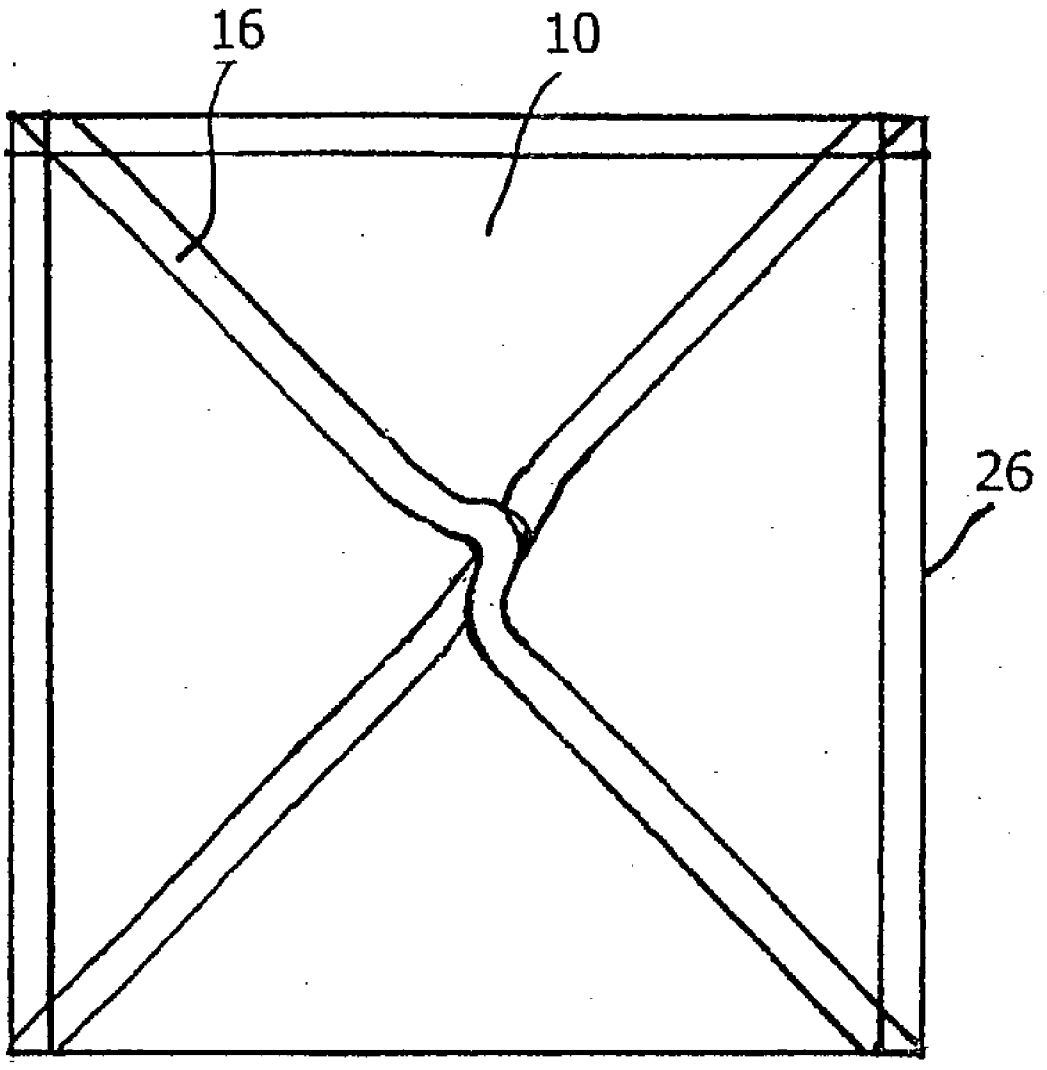
Publication Classification

(51) **Int. Cl.**[7] **A47L 13/16**

(52) **U.S. Cl.** **15/208**; 15/209.1

(57) **ABSTRACT**

A dusting and cleaning towel of the type having multiple seams and tufts strategically occurring throughout. The base of the towel is made of a flexible material that is repeatedly seamed to create tufts for the purpose of adding structure, control and finger grip to a dusting and cleaning cloth.



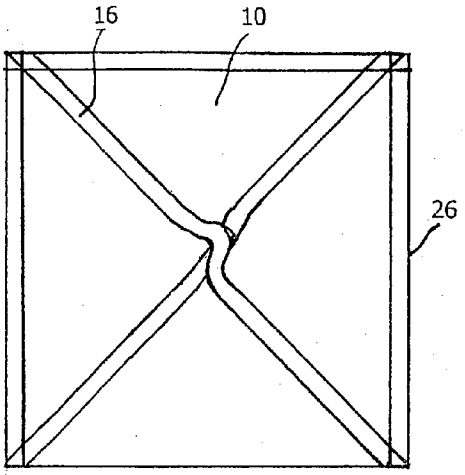


FIG. 1A

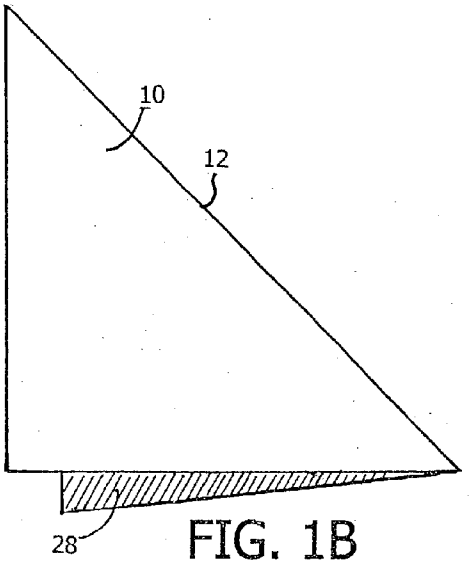


FIG. 1B

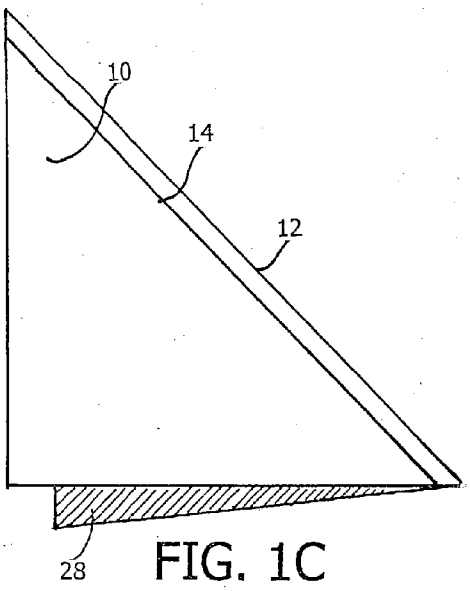


FIG. 1C

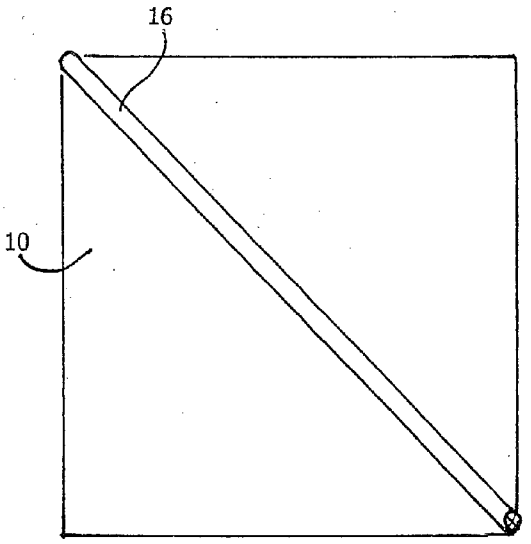


FIG. 1D

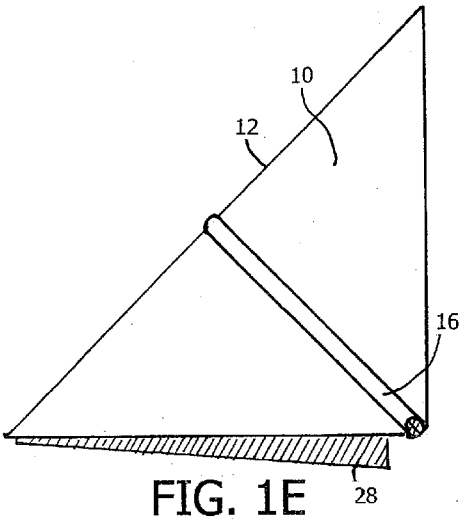


FIG. 1E

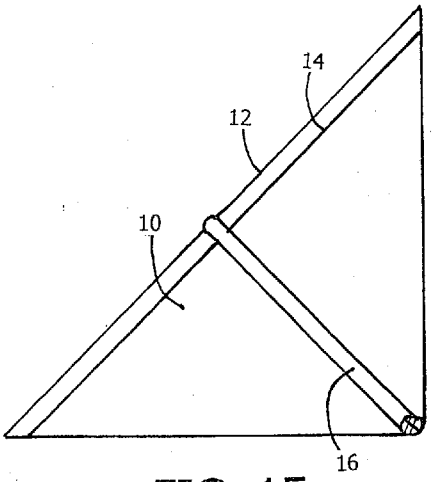


FIG. 1F

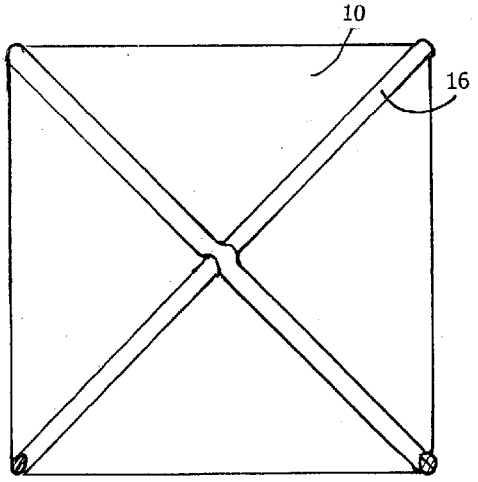


FIG. 1G

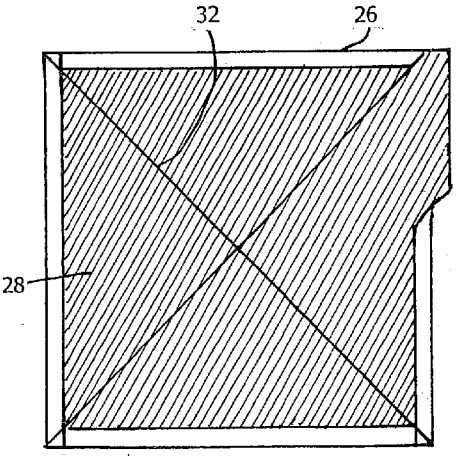


FIG. 1H

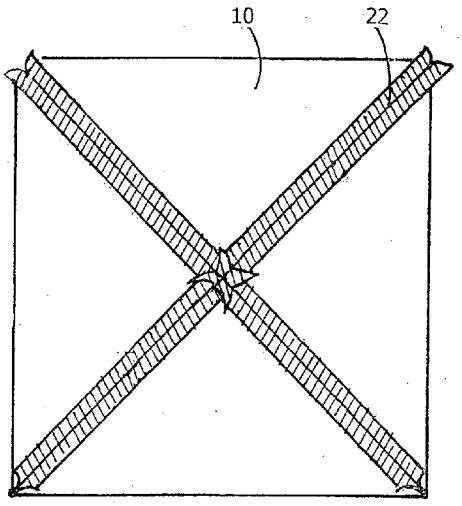


FIG. 2A

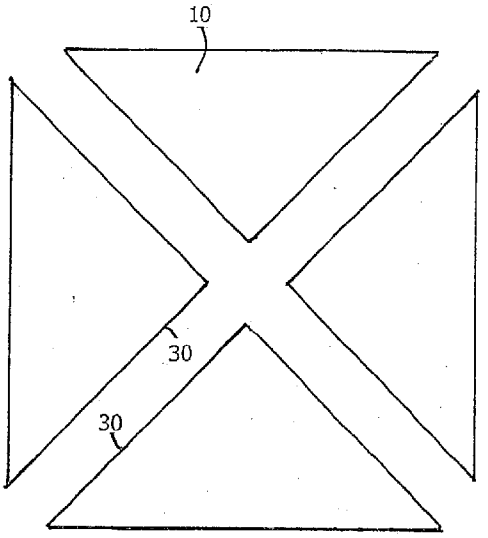


FIG. 2B

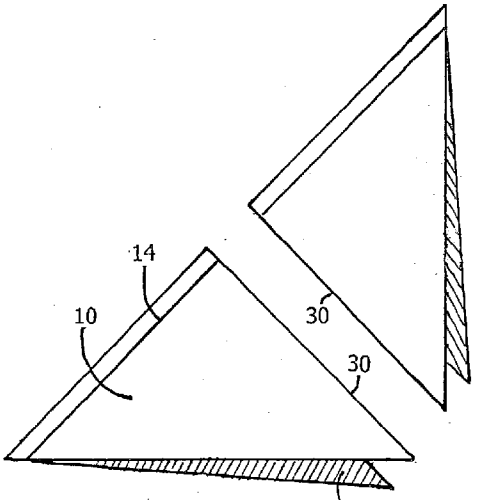


FIG. 2C

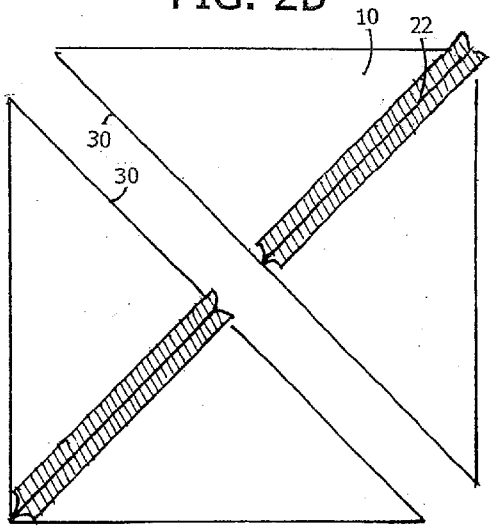


FIG. 2D

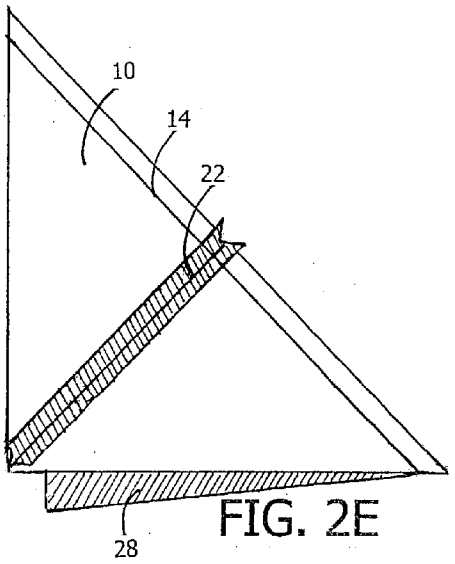
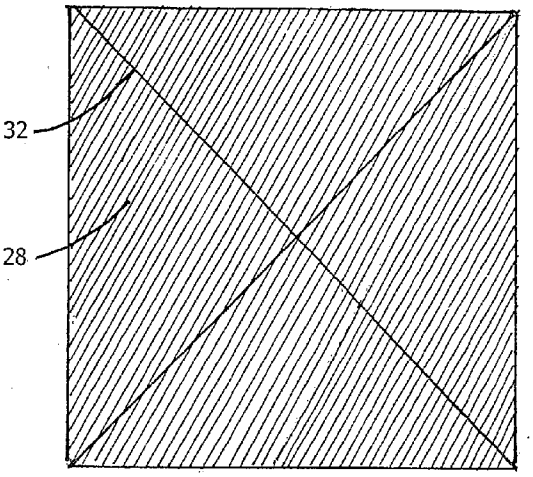


FIG. 2E



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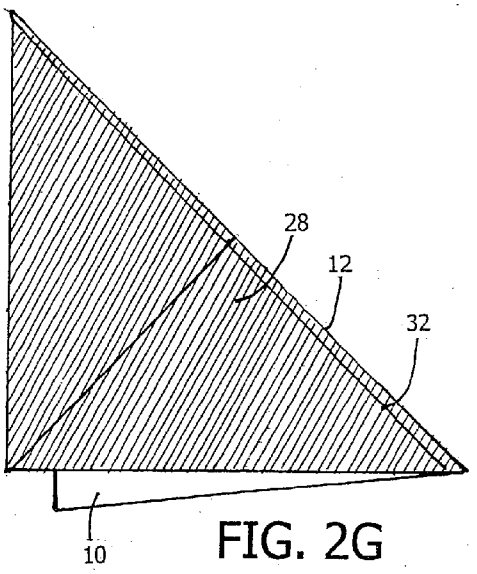

FIG. 2G

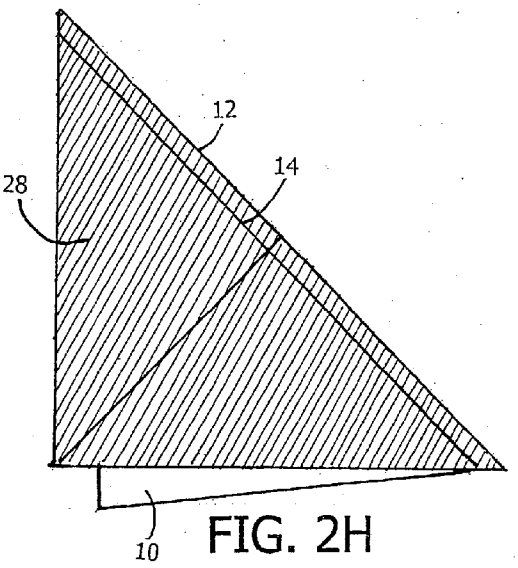

FIG. 2H

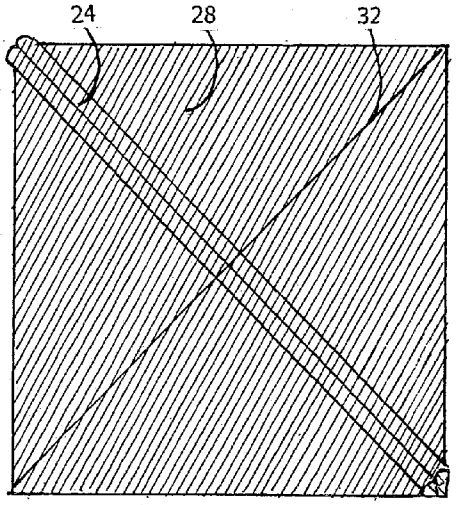

FIG. 2J

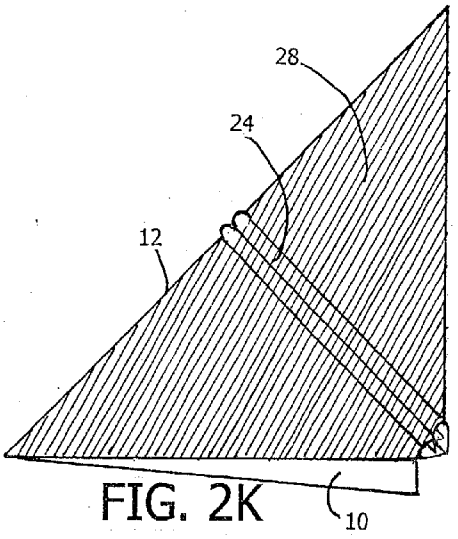

FIG. 2K

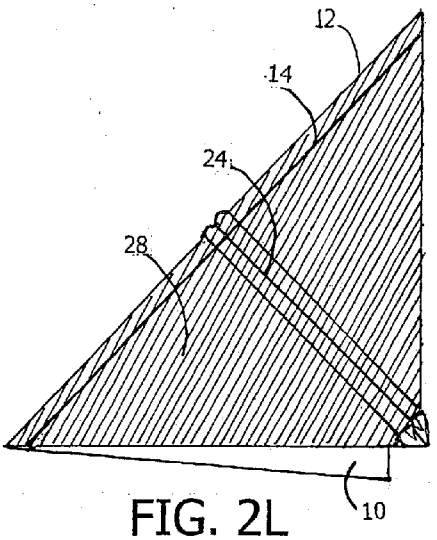

FIG. 2L

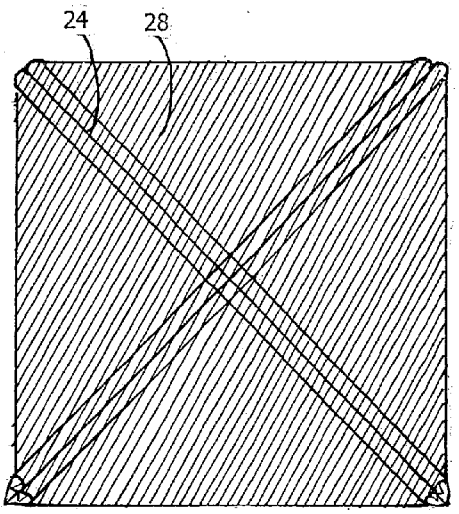

FIG. 2M

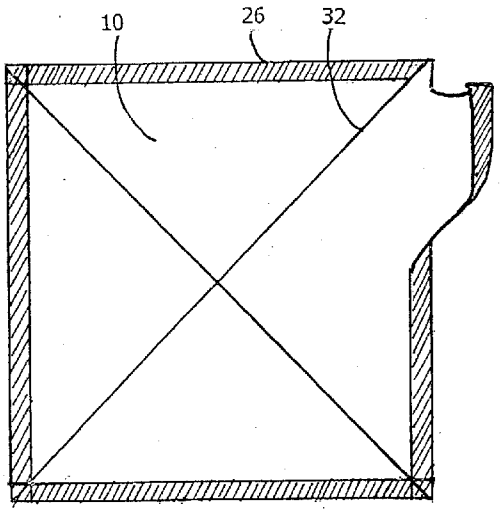

FIG. 2N

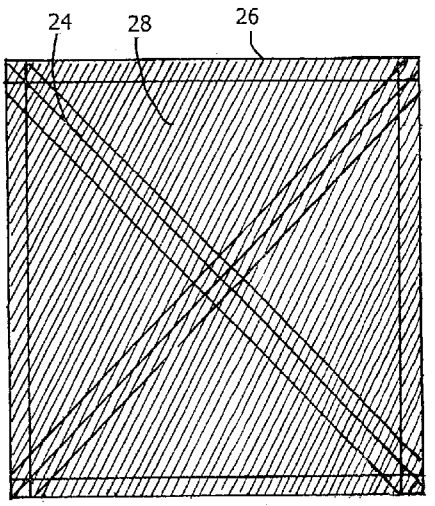

FIG. 2P

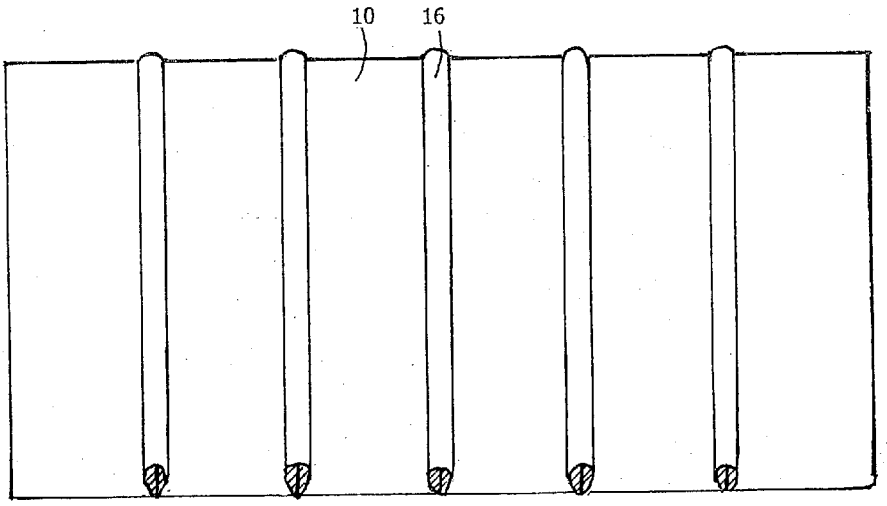

FIG. 3A

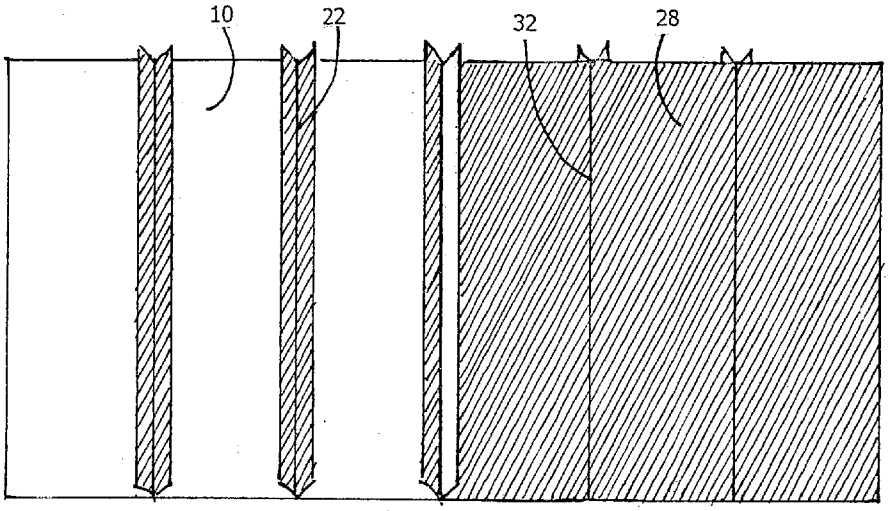

FIG. 3B

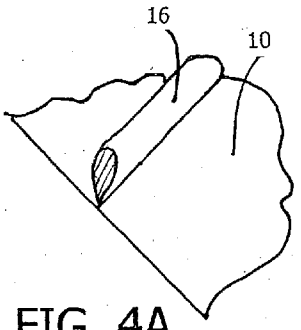

FIG. 4A

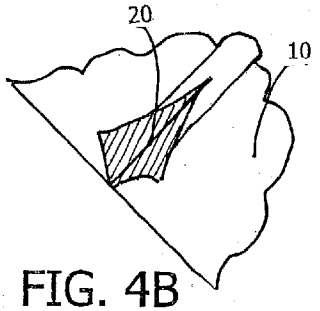

FIG. 4B

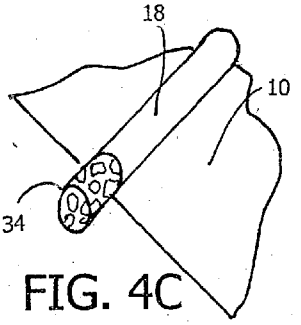

FIG. 4C

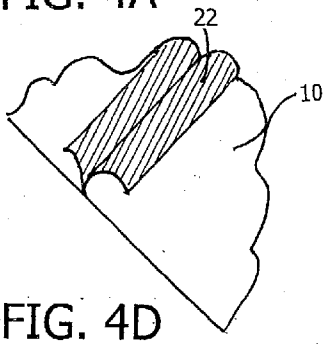

FIG. 4D

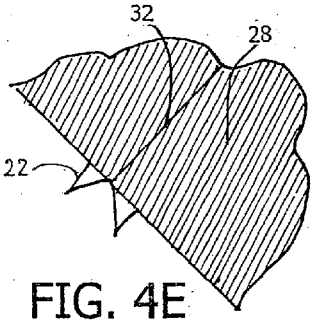

FIG. 4E

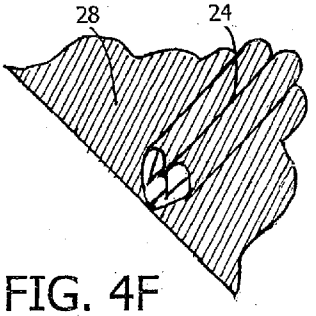

FIG. 4F

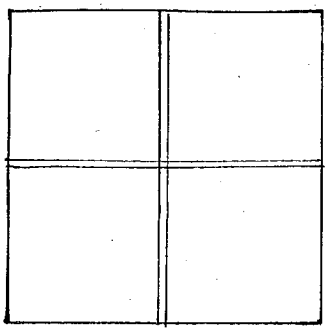

FIG. 5A

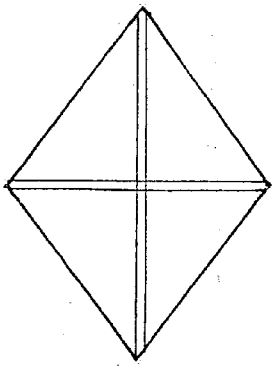

FIG. 5B

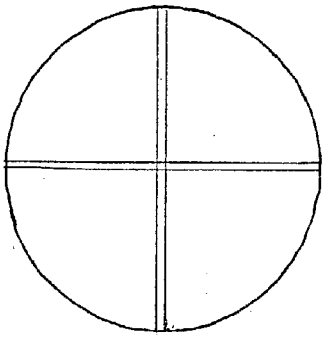

FIG. 5C

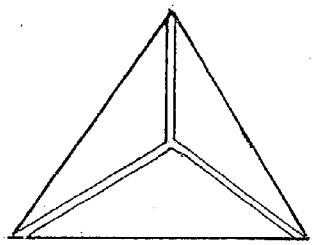

FIG. 5D

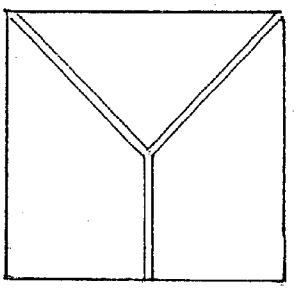

FIG. 5E

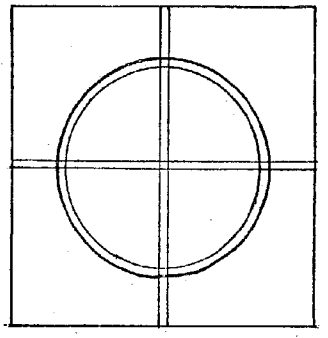

FIG. 5F

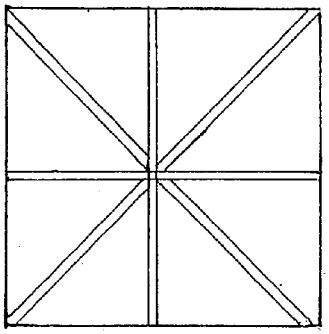

FIG. 5G

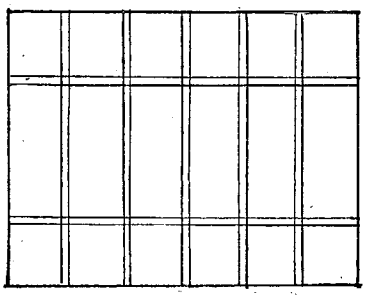

FIG. 5H

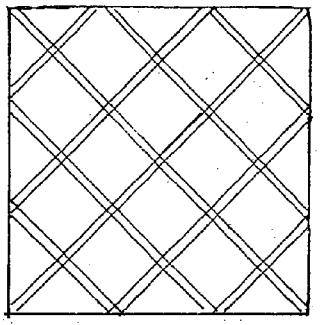

FIG. 5J

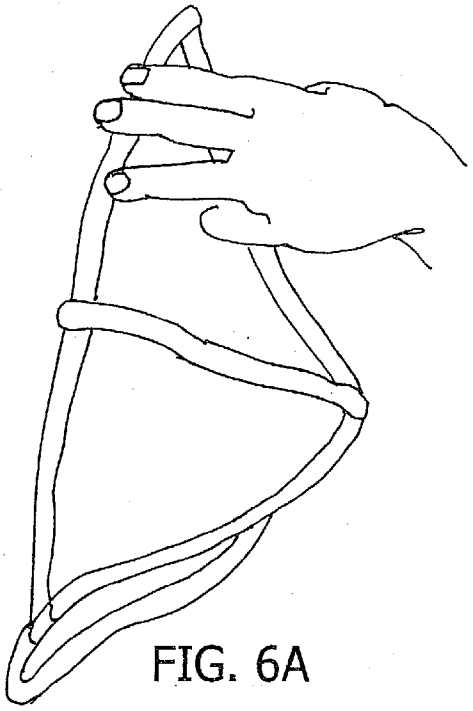

FIG. 6A

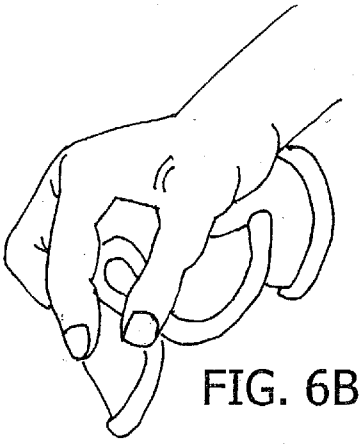

FIG. 6B

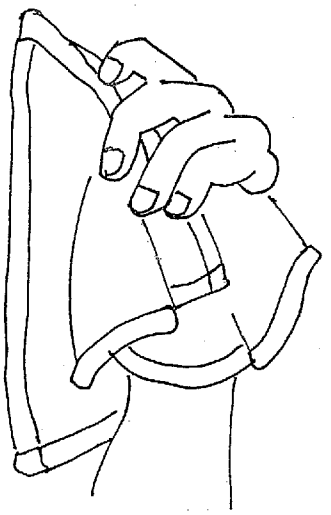

FIG. 6C

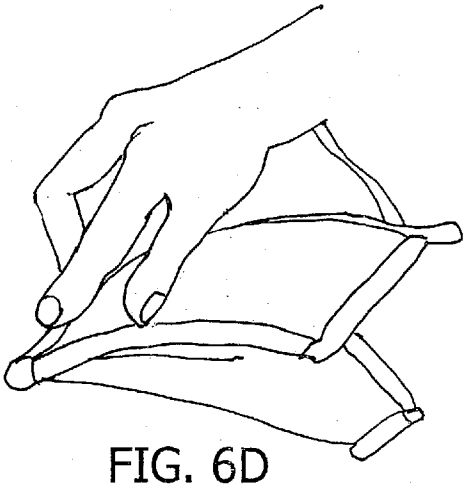

FIG. 6D

SEAM AND TUFT TOWELS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable

FEDERALLY SPONSORED RESEARCH

[0002] Not Applicable

SEQUENCE LISTING OR PROGRAM

[0003] Not Applicable

BACKGROUND OF THE INVENTION—FIELD OF INVENTION

[0004] This invention relates to dusting and cleaning cloths, specifically to such devices that are used for commercial, industrial or household cleaning.

BACKGROUND OF THE INVENTION

[0005] The "dust rag" has come a long way from the days when the household rag bag yielded a selection of old worn out clothing to be cut up and recycled for general dusting or cleaning. We've come a long way from searching out Dad's old cotton T-shirts for their absorbency. In recent years, the average household, as well as professional cleaning and industrial cleaning establishments have become inundated with a plethora of very sophisticated dusting and cleaning devices that are available in a variety of shapes and configurations. The cleaning and dusting devices in use today are marketed in various forms of cleaning mitts, cleaning gloves, envelope configured hand enclosures, as well as conventional rectangular cloths and towels. And the majority of these items are now offered in high tech materials as well as traditional fabrics.

[0006] With the concept of "bigger is better", many of the towels on the market today, are cut larger than before, utilizing thicker and heavier materials. These towels have their place, but for general use they are simply too cumbersome to manipulate easily. A lighter weight wiping cloth is often more efficient for all-purpose cleaning, especially in small or delicate areas. But a lightweight cloth can be flimsy and difficult to control.

[0007] Most professional cleaning persons, auto detailers and window washers are quite adept at maneuvering and controlling a towel. And most prefer the versatility of a flat cloth or towel over the sundry of hand enclosures available today. A towel can be doubled over to increase it's bulk, scrunched or wadded in the hand for concentrated mass, or it may be folded and creased to function as a crevice device. The flat, one-dimensional cloth or towel is a staple in every professional cleaning person's assemblage of equipment and cleaning products. In the professional's hands, it is one of his (her) most useful tools. The efficiency of the conventional rectangular towel or cloth is increased even further when produced in some of the new lint free, highly absorbent materials such as a micro fiber. But they still need to be wadded, folded or otherwise manipulated in order to be totally efficient.

[0008] As versatile as the conventional cloth may be, valuable time may be lost in the arrayal of the cloth. And the fluid motion of the towel in use demands a good deal of hand exertion in order to contain and control it.

BACKGROUND OF THE INVENTION—OBJECTS AND ADVANTAGES

[0009] Accordingly, besides the objects and advantages of the seam and tuft towels described in my above patent, several objects and advantages of the present invention are:

[0010] (a) to provide a cleaning towel with created tufts resulting in superior finger grip and maneuverability.

[0011] (b) to provide a cleaning towel that automatically tends to fold at strategically placed tuft sites when the towel is applied to a flat surface or is put into motion by the hand of a user.

[0012] (c) to provide a cleaning towel with superior handling properties.

[0013] (d) to provide a plurality of separated panels to a flat towel to give it structure.

[0014] (e) to provide purpose and functionality to a towel hem.

[0015] (f) to provide a cleaning towel with ready-made folded edges and points that function as crevice tools.

[0016] (g) to provide a towel with dimensional form requiring less hand grip to maneuver the towel.

[0017] (h) to provide a towel with concentrated bulk at strategic points.

[0018] (i) to provide a towel with strategically placed, added concentrations of mass onto a lightweight towel base.

[0019] (j) to provide a towel that features a predetermined number of protrusive ridges at strategic areas of the towel.

[0020] Further objects and advantages are to provide a superior towel for cleaning, wiping, drying, rubbing, polishing and the application of cleaning agents. Still further advantages are the control that the seam and tuft ridges offer the user. The tufting feature also provides greater surface resistance over that of conventional towels for superior cleaning and wiping. Still further objects and advantages will become apparent from a consideration of the ensuing description and drawings.

SUMMARY

[0021] In accordance with the present invention, a dusting and cleaning towel comprises a flat one-dimensional piece of material, having multiple folds and seams applied to form protrusive ridges at strategic points within the surface of the towel base.

DRAWINGS—FIGURES

[0022] In the drawings, closely related figures have the same number but different alphabetic suffixes.

[0023] **FIGS. 1A** to **1H** show a preferred embodiment of the seam and tuft towel featuring a plain closed tuft and the construction thereof.

[0024] **FIGS. 2A** to **2P** show additional seam and tuft towel embodiments.

[0025] **FIGS. 3A** to **3**B show alternative seam and tuft towel embodiments.

[0026] **FIGS. 4A** to **4**F show top and end views of seams and tufts.

[0027] **FIGS. 5A** to **5**J show various alternative seam and tuft patterns as applied onto and within various towel base shapes.

[0028] **FIGS. 6A** to **6**D show various utilitarian applications of a seam and tuft towel in use.

DRAWINGS—REFERENCE NUMERALS

[0029] **10** towel base topside

[0030] **12** fold

[0031] **14** seam

[0032] **16** plain closed tuft

[0033] **18** stuffed closed tuft

[0034] **20** closed tuft with slit top

[0035] **22** open tuft

[0036] **24** double seamed closed tuft

[0037] **26** folded self hem

[0038] **28** towel base underside

[0039] **30** mutual edges

[0040] **32** seam site

[0041] **34** tuft stuffing

DETAILED DESCRIPTION—FIGS 1A-1H—PREFERED EMBODIMENT

[0042] A preferred embodiment of the seam and tuft towel is illustrated in **FIG. 1A**. The towel is shown with strategically placed seams **14** and plain closed tufts **16** placed at opposing diagonals, designed for optimum handling for most general cleaning tasks. The construction of this particular pattern is shown in **FIGS. 1B** to 1H. In **FIG. 1B** a square towel base topside **10** is folded on a diagonal from one corner to the opposite corner. It is then seamed approximately ¼" to ½" from the fold **12** as shown in **FIG. 1C** to form a diagonal seam **14** and plain closed tuft **16**. The towel is then opened up as seen in **FIG. 1D** and refolded from the other corner to its opposite corner as shown in **FIG. 1E**. It is then seamed adjacent to the new fold **12**, up to the first plain closed tuft **16**, skipping over the tuft, and resuming the seam to the end, as shown in **FIG. 1F**. Skipping over the first tuft results in a flexible pivot point in the center of the towel. In **FIG. 1G** the towel is unfolded, turned over in **FIG. 1H** to expose the towel base underside **28**, and finished with a simple, folded over once, self hem **26**.

[0043] In the preferred embodiment, a plain closed tuft **16** as shown in **FIG. 4A** is utilized. It is the most economical to manufacture and it is very effective for general use. However, the plain closed tuft **16** may be slit at the top as shown in **FIG. 4B** to modify it into a closed tuft with a slit top **20**, in order to increase the flexibility of a heavy or stiff towel base. Conversely, the plain closed tuft may be stuffed with cord, poly-fill or sponge **34** as shown in **FIG. 4C** for added firmness if the towel base is soft or tending to be flimsy.

[0044] In the preferred embodiment, the seam and tuft towel body is composed of a micro fiber which excels for all purpose use: dusting, cleaning, washing, polishing or drying etc. However, virtually any material typically used for cleaning, washing, wiping or drying may used as a towel base material. For example, a fleece material works very well for the application of cleaning solutions; a cotton fabric may be chosen for absorption; a fibrous material for aggressive tasks; a disposable material for convenience etc.

FIGS. 2A-2P—Additional Embodiments

[0045] An additional embodiment seen in **FIG. 2A** features separate panels as shown in **FIG. 2B**. These separate panels may be of different colors or even different materials. The advantage being that a user may easily discern which panel has been previously used. This seam and tuft towel features simple open tufts **22**, as seen in **FIG. 2A**. These open tufts **22** are created by seaming the separate panels that are seen in **FIG. 2B**, together, as seen in **FIG. 2C**, adjacent to their mutual edges **30**. The towel sections are then unfolded as seen in **FIG. 2D**. They are then repositioned on the opposite diagonal, and again seamed adjacent to their mutual edges **30**, as seen in **FIG. 2E**, forming a finished square, four panel, un-hemmed towel as was seen in **FIG. 2A** when it is unfolded.

[0046] The open tuft towel shown in **FIG. 2A** may be converted into a double seamed closed tuft towel as shown in **FIG. 2P** for extra firmness and stability. The four panel seam and tuft towel of **FIG. 2A** is turned over to its towel base underside **28** as seen in **FIG. 2F**. It is then folded directly on the underside at a diagonal seam site **32** as seen in **FIG. 2G**, and seamed adjacent to the fold **12**, typically approximately ½" from the fold **12** as shown in **FIG. 2H**. In **FIG. 2J** the towel is unfolded, and refolded on the opposite diagonal seam site as seen in **FIG. 2K**. In **FIG. 2L**, it is re-seamed adjacent to the fold **12**. In **FIG. 2M**, the towel is unfolded into a square. In **FIG. 2N**, the towel is flipped to the other side which is the towel base topside **10** and hemmed with a twice folded self hem **26**. **FIG. 2P** shows a completed towel with double seamed closed tufts **24**.

FIGS. 3A-3B—Alternative Embodiments

[0047] **FIG. 3A** shows a simplified version of my seam and tuft towels made up of a length of toweling that has been repetitively folded and seamed at measured intervals. This towel features a multiplicity of plain closed tufts **16** occurring throughout the length of the towel.

[0048] **FIG. 3B** shows a multi-paneled seam and tuft towel featuring open tufts **22** formed by seaming equally sized panels at their longitudinal mutual edges **30**. Because each panel is joined as a separate entity, multiple colors as well as multiple base materials may be used, with the benefit that a user can tell which portion of the towel has been used. Additionally, this particular version reverses the top and undersides of the towel in the center for ease of folding.

FIGS. 4A-4F—Top and End Views of Seam and Tuft Constructions

[0049] The plain closed tuft **16** design as seen in **FIG. 4A** is quite efficient and practical for most cleaning applications.

It is constructed by folding the towel base, and stitching or otherwise affixing approximately ¼" to ½" adjacent to the fold. However, the base material, as well as specific projected usages, may call for extra stiffness. A stuffed closed tuft **18** as seen in **FIG. 4C** is created by adding a stuffing **34** such as sponge, cord or poly-fill within the fold just prior to seaming. A plain closed tuft may be converted into a closed tuft with a slit top **20** resulting in an open tuft, simply by slitting the closed tuft at the top as seen in **FIG. 4B**. When multiple base materials or colored panels are called for, two panels are stitched or otherwise affixed to each other approximately ¼" to ½" from their respective edges, automatically creating an open tuft **22** as seen in **FIG. 4D**. For added firmness, an open tuft may be converted to a double seamed closed tuft **24**, as seen in **FIG. 4F**, by turning the towel over to it's towel base underside **28** as seen in **FIG. 4E**, refolding on the seam site **32**, and re-seaming to form a double seamed closed tuft **28** as seen in **FIG. 4F**.

FIGS. **5A-5J**—Optional Seam and Tuft Patterns

[**0050**] Optional seam and tuft patterns are shown in **FIGS. 5A** to **5J**; in each case a predetermined number of seams and tufts are applied to, or incorporated within, predetermined towel patterns. All are applied to, or incorporated within, predetermined shapes of base toweling. And each one may be optionally constructed with plain closed tufts **16** as seen in **FIG. 4A**, closed tufts with a slit top **20** as seen in **FIG. 4B**, stuffed closed tufts **18** as seen in **FIG. 4C**, open tufts **22**, as seen in **FIG. 4D and 4E** or double seamed closed tufts **24** as seen in **FIG. 4F**.

[**0051**] **FIG. 5A** shows a simple seam and tuft cross pattern as applied to or incorporated within, a square shaped piece of toweling. **FIG. 5B** shows a simple cross pattern with a diamond shaped base. **FIG. 5C** shows a simple cross pattern with a round base. **FIG. 5D** shows a triangular pattern with a triangular base. **FIG. 5E** shows a triangular pattern with a square base. **FIG. 5F** shows the simple cross superimposed over a circular seam and tuft on a square piece of toweling. **FIG. 5G** shows a diagonal pattern superimposed over a simple cross pattern. **FIG. 5H** shows multiple panels seamed horizontally and re-seamed vertically. **FIG. 5J** shows multiple diagonals. As shown, the variety of pattern possibilities is virtually endless.

[**0052**] There are various possibilities with regard to my seam and tuft towel. A seam and tuft towel may be modified to form an envelope style mitt or even a cylindrical shaped construction that embodies all of the advantages of the seam and tuft applications.

FIGS. **6A-6D**—Operation

[**0053**] The manner of using my seam and tuft towel in the act of cleaning or dusting is similar to that for a conventional flat cleaning cloth. Namely, three dimensional objects as well as flat planes are dusted or cleaned by applying the cloth to a surface with the hands. As stated before, a conventional cloth in the hands of a professional will be folded, stated wadded up or otherwise conformed to the anticipated task. However, my seam and tuft patterns diminish the need to constantly re-manipulate the conformation of the cloth. **FIG. 6A** shows how a seam and tuft encourages an automatic fold when the towel is applied to surface to be cleaned. **FIG. 6B** shows how the seam and tuft create finger hold to assist in ease of wadding or scrunching the towel. **FIG. 6C** shows how the seam and tuft assembly maintains its structure and stability when grasped. **FIG. 6D** shows how concentrated mass at strategic points function as automatic crevice tool.

Advantages

[**0054**] From the description above, a number of advantages of my seam and tuft towels become evident:

[**0055**] (a) My seam and tuft towel has a built-in folds that prompt automatic folding when it is laid out and applied to a surface.

[**0056**] (b) My seam and tuft towel has ridges that provide extra gripping properties to the towel.

[**0057**] (c) My seam and tuft towel is completely reusable and easy to launder with the exception of possible manufacture in disposable materials.

[**0058**] (d) My seam and tuft towel features strategic concentrations of mass that automatically work as crevice tools.

Conclusion, Ramifications and Scope

[**0059**] Accordingly, the reader will see that the seam and tuft towel is a definitive improvement over the conventional flat dusting, cleaning, wiping or drying cloth, saving time and effort in the hands of the average homemaker and especially in the hands of a professional cleaning person. When applied to a towel base, seams and tufts give the towel structure, thus providing the towel with superior handling properties. The seam and tuft application provides the towel with a memory for automatic arrayal of the towel for a specific task with a simple manipulation of the hand of a user. Furthermore, the seam and tuft towel has the additional advantages that

[**0060**] it provides added substance and bulk to a cloth without adding an additional amount of fabric.

[**0061**] it permits the user to easily fold the towel along the seam and tuft alignment when it is laid out.

[**0062**] it provides control of the entire towel through manipulation of the tufts by the user's fingers.

[**0063**] it provides structure to a towel.

[**0064**] it provides an instant folded edge to a towel.

[**0065**] it adds support to a fluid, flowing towel, thus diminishing hand fatigue.

[**0066**] it allows full use of the entire surface of a towel.

[**0067**] It provides a constant awareness of both a top surface and an underside of a towel.

[**0068**] Although the description above contains many specificities, these should not be construed as limiting the scope of the invention but as merely providing illustrations of some of the presently preferred embodiments of this invention. For example, the seam and tuft towel base can be constructed in almost any shape or size. The seam and tuft itself can be applied in any number of predetermined designs and patterns. The tuft size and basic configuration may be altered in any manner dictated by the base material or projected usage of the towel.

[0069] The seam and tuft concept may be easily adapted to a variety of uses within the health care industry, the restaurant industry, construction cleanup or varied phases of manufacturing. Specific possibilities include pet care, shoe shining, and personal hygiene.

[0070] Thus the scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given.

I claim:

1. In a dusting and cleaning towel of the type comprising a flat body of material having multiple seams strategically positioned throughout said body surface, forming seams and tufts.

2. The dusting and cleaning towel of claim 1 wherein said flat body of material is composed of any suitable material commonly used for washing, wiping, polishing or drying.

3. The dusting and cleaning towel of claim 1 wherein multiple said seams and tufts are incorporated within said flat body of material in predetermined patterns.

4. The dusting and cleaning towel of claim 3 wherein said seams and tufts are formed by folding said flat body of material followed by affixing said seam approximately ¼" to ½" from the folded edge whereby said tuft is formed.

5. The dusting and cleaning towel of claim 4 wherein said tuft is left intact to form a plain closed tuft.

6. The dusting and cleaning towel of claim 4 wherein said tuft is stuffed with cord, poly-fill or sponge prior to seaming to form a stuffed tuft.

7. The dusting and cleaning towel of claim 4 wherein said tuft is slit at the top to form an open tuft.

8. The dusting and cleaning towel of claim 3 wherein said flat body material comprises multiple panels joined at their mutual edges whereby said tuft is formed.

9. The dusting and cleaning towel of claim 8. whereby said multiple panels are seamed together to form an automatic open tuft at each seam.

10. The dusting and cleaning towel of claim 9 whereby said towel with said open tufts may be turned over and folded on the seam site on the underside of said towel base to be re-seamed adjacent to the fold to form a double seamed closed tuft.

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