Jan. 29, 1957 O. W. ANDERSON 2,779,465

COMPOSITE DISPOSABLE PAD

Filed April 13, 1954 2 Sheets-Sheet 1

Fig. 1

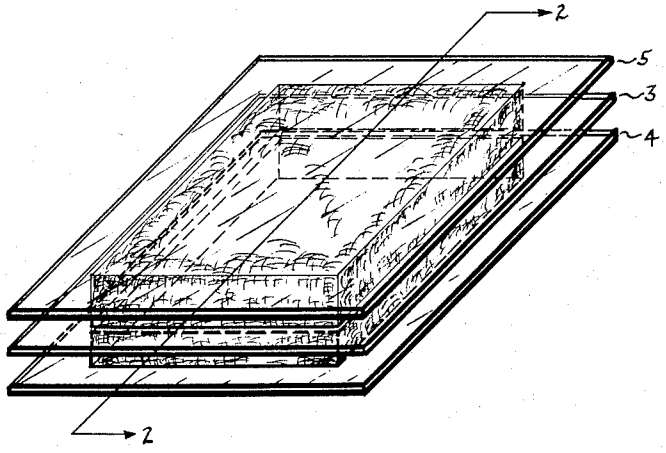


Fig. 2

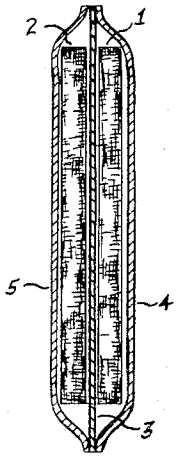


Fig. 3

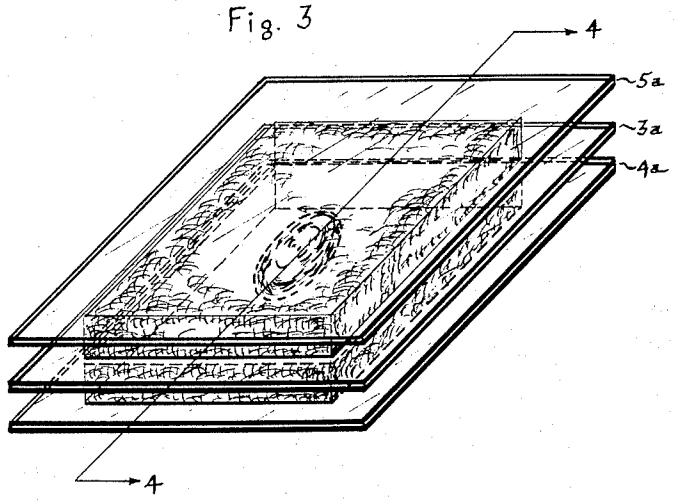
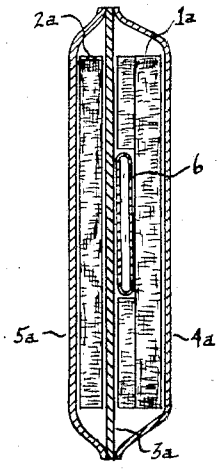


Fig. 4



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Filed April 13, 1954 2 Sheets-Sheet 2

Fig. 5

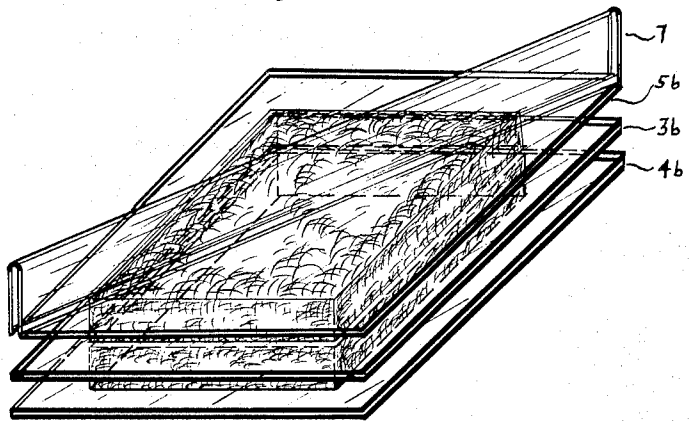


Fig. 7

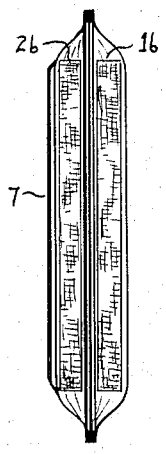
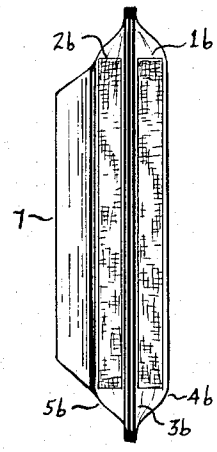


Fig. 6



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COMPOSITE DISPOSABLE PAD

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3 Claims. (Cl. 206—47)

This invention relates to pads and in particular to composite disposable cleaning or polishing pads.

This invention is designed to overcome many of the disadvantages of the current cleaning and polishing pads and also to provide cleaning or polishing pads which are capable of uses not contemplated by pads commonly in use, as set forth hereinafter. The present invention is designed especially for cleaning automobile windows. Automobile windows are frequently dirtied and smeared by dust, mud, oil, grime and bugs. Such a condition of the windows makes driving quite hazardous, particularly at night, and endangers the lives of the occupants of the automobile as well as others who might possibly be involved in an accident caused by faulty vision through the automobile windows. The composite pad is also useful in cleaning or polishing of materials such as glass, cloth, paper, leather, metal, wood, and the like.

The cleaning or polishing pads commonly in use are dependent upon a separate supply of cleaning or polishing compound. The devices in common use for cleaning automobile windows are dependent upon a supply of water which may not be available readily in an extended trip, especially should the trip necessitate travel through relatively unpopulated areas. However, the cleaning pad in one embodiment of this invention is not dependent upon a separate supply of cleaning fluid or cleaning compound, nor upon an outside source of water and hence is ideally suited for use in the cleaning of automobile windows under all kinds of conditions and in all locations.

Likewise, many of the polishing pads now in use are also dependent upon an auxiliary supply of polishing compound. Such auxiliary supplies are not desirable since the polish containers fail to be air tight once they have been opened and hence the polishing compound becomes deteriorated and loses its effectiveness. However, the present polishing pad is not dependent upon such auxiliary supply of polish and hence the polishing compound is not subject to deterioration.

Also, this invention provides a compact shoe polishing pad capable of being packed conveniently in a suitcase for use while traveling without soiling clothing placed adjacent thereto and without the necessity of a separate kit to house the shoe polish equipment.

In general the present invention contemplates a composite disposable pad, comprising an applicator pad and a buffing or drying pad separated by a fluid-impervious barrier sheet which extends beyond the edges of the pads. This barrier sheet is sealed at its marginal portions to fluid-impervious sheets covering each of the pads to thereby form envelopes for each of the pads. The applicator pad preferably is attached to the interposed barrier sheet, while the other pad, the buffing or drying pad, may be free in its envelope.

The applicator pad is used to apply a cleaner or polish to a surface to be treated. The buffing or drying pad is used as a buffing pad to buff the surface to which

polish has been applied, or used as a drying pad to remove the dirt and grime loosened by the cleaning compound when the applicator pad is employed as a cleaning means.

In one embodiment of the invention, the applicator pad contains the compound to be applied, such as a detergent or polishing compound; while in another embodiment of this invention the cleaning compound or polishing compound, either with or without a solvent or dispersing agent, is enclosed in a frangible capsule preferably located between the applicator pad and the barrier sheet.

The two fluid-impervious envelopes prevent the passage of fluids therethrough and hence prevent the deterioration and loss of the material to be applied either when the applicator pad contains the material or when it is contained in the frangible capsule which might be broken accidentally. In addition, the envelopes prevent the soilage of both pads prior to their usage. The fluid-impervious barrier sheet prevents the passage of the cleaning or polishing compound from the applicator pad to the buffing or drying pad and hence maintains this pad in its original condition prior to its use.

For convenience in gripping the composite pad, the envelope enclosing the buffing or drying pad may be provided with a handle. This handle may be formed by a pleat in the envelope.

The invention will be described further in connection with the accompanying drawings which show several embodiments of the invention. These drawings are used as means of exemplification of the invention and do not constitute limitations thereof. The invention is to be limited only to the scope of the appended claims.

In the drawings,

Fig. 1 is a perspective view of one embodiment of the invention, showing the impregnated composite pad with the fluid-impervious envelopes in an unsealed position,

Fig. 2 is a cross-sectional view of the pad taken on line 2—2 of Fig. 1 showing the fluid-impervious envelopes in a sealed position,

Fig. 3 is a perspective view of a second embodiment of the invention showing a composite pad provided with a frangible capsule and showing the fluid-impervious envelopes in an unsealed position,

Fig. 4 is a cross-sectional view of the pad taken on line 4—4 of Fig. 3, showing the fluid-impervious envelopes in a sealed position and showing the location of the frangible capsule,

Fig. 5 is a perspective view of the composite pad of Fig. 1, showing the pad provided with a handle and showing the fluid-impervious envelopes in an unsealed position,

Fig. 6 is an elevational view of the pad shown in Fig. 5 with the handle shown in its position of usage and the envelopes in their sealed position, and

Fig. 7 is an elevational view of the pad shown in Fig. 5, showing the handle in a folded position and the envelopes in their sealed position.

In the embodiment shown in Figs. 1 and 2, the composite disposable cleaning or polishing pad comprises two pads 1 and 2, preferably of cellulosic material such as cotton, cloth, fluffed wood pulp, or one of the newer highly swelling celluloses, placed back to back. These two pads are separated by a fluid-impervious barrier sheet 3 formed of heavy waxed paper, cellophane, thermoplastic material, or the like, extending beyond the edges of the two pads and lying between the pads in a plane parallel thereto. The applicator pad 1 preferably is attached to the barrier sheet by suitable means, such as a mastic or by heat sealing when using a thermoplastic material as

the barrier sheet. Fluid-impervious covering sheets 4 and 5 lie on the outer sides of the pads 1 and 2 respectively and parallel thereto. These sheets are made of some suitable material, such as cellophane or hydroxyethylcellulose. The covering sheets 4 and 5 are sealed to the barrier sheet 3 along its marginal portions whereby the two pads are enclosed in individual envelopes with the drying or buffing pad 2 preferably being loose in its envelope. The applicator pad in this embodiment contains a cleaning or polishing compound applied to the pad by coating, impregnation, or the like.

Figs. 3 and 4 show a second embodiment of this invention wherein identical elements have been designated with the same numerals employed in Figs. 1 and 2, with the addition of a character "*a*" after the numerical designations. In this embodiment there is a frangible capsule 6 containing a cleaning or polishing compound, either with or without a solvent or dispersing agent placed between the applicator pad 1*a* and the barrier sheet 3*a*.

In the embodiment shown in Figs. 5, 6 and 7, elements identical with those in Figs. 1 and 2 have been designated with the same numerals with the addition of the letter "*b*" after the numerical designation. The composite disposable pad of this embodiment is provided with a handle 7 which conveniently may be formed from a diagonal pleat in the covering sheet 5*b*. This pleat may be folded so that it lies flat against sheet 5*b* for convenience in packing, as shown in Fig. 7. This pleat may be unfolded, as shown in Figs. 5 and 6, so that it lies perpendicular to the surface of the composite pad and serves as a handle during the application step. This pleat could also be formed in sheet 5*a* covering the drying or buffing pad 2*a* of the embodiment shown in Figs. 3 and 4, wherein a frangible capsule is employed.

The applicator pad should be fairly substantial and in a rather compact form to enable it to withstand the abuse occurring during application of the cleaning or polishing compound.

For ease of identification of the two pads, the envelope containing the applicator pad may be tinted differently from that containing the drying or buffing pad. This would be especially desirable in the embodiment wherein the applicator pad is impregnated and no handle is provided on the envelope enclosing the drying or buffing pad to differentiate it from the applicator pad.

The impregnated composite pad, shown in Figs. 1, 2, 5, 6 and 7, is used by removing the sheet 4 or 4*b* which covers the applicator pad 1 or 1*b*. The applicator pad is moistened if necessary, depending upon the type of cleaning or polishing compound with which it is provided, and the cleaning or polishing compound applied to a surface by gripping the drying or buffing pad 2 or 2*b*, or by gripping handle 7 and rubbing the applicator pad against the surface. With such an arrangement the cleaning or polishing compound is applied readily to a surface, but the water-impervious barrier sheet 3 will prevent the compound from penetrating the buffing or drying pad which is still enclosed between the fluid-impervious barrier and the covering sheet for that pad; and the hands of the user will not be soiled.

The cleaning or polishing compound is applied by the embodiment shown in Figs. 3 and 4 by squeezing the applicator pad 1*a* to crush the frangible capsule 6 and then removing the sheet 4*a* covering that pad. The applicator pad may be moistened if the capsule does not contain a solvent or dispersing agent and if moisture is desirable. The cleaning or polishing compound is then applied to the surface to be cleaned or polished by gripping the drying or buffing pad 2*a* which is still enclosed in its envelope and rubbing the surface to be cleaned or polished.

After the cleaning or polishing compound has been applied to the surface, the sheet 5, 5*a*, or 5*b* covering the drying or buffing pad is removed and the pad taken out of the envelope for use in removing the dirt and cleaning compound from the surface or for use in buffing the polish on the surface. After the cleaning or polishing operation, both pads may be disposed of.

While the invention has been described in connection with the above embodiments only, it will be understood that various changes may be made in the details of construction without departing from the invention or sacrificing any of the advantages thereof.

I claim:

1. A composite disposable article for use in treating a surface comprising a fluid-impervious barrier sheet, an applicator pad securely attached to one side of said barrier sheet and adapted to apply a treating compound to said surface, a buffing or drying pad positioned adjacent the other side of said barrier sheet, said barrier sheet separating the said two pads and extending beyond the edges thereof, a flexible fluid-impervious covering sheet on the outer side of each pad and having its marginal portions sealed to the marginal portions of the barrier sheet and forming an envelope for each pad, whereby the covering sheet may be removed from the applicator pad, and the buffing or drying pad and overlying covering sheet may be gripped to move the applicator pad over the surface to be treated.

2. A composite disposable article, as set forth in claim 1, wherein a pleat is formed in the covering sheet which covers said buffing or drying pad to form a handle for said article.

3. A composite disposable article for use in treating a surface comprising a fluid-impervious barrier sheet, an applicator pad securely attached to one side of said barrier sheet and adapted to apply a treating compound to said surface, a buffing or drying pad loosely positioned adjacent the other side of said barrier sheet, said barrier sheet separating the said two pads and extending beyond the edges thereof, a flexible fluid-impervious covering sheet on the outer side of each pad and having its marginal portions sealed to the marginal portions of the barrier sheet and forming an envelope for each pad, whereby the covering sheet may be removed from the applicator pad, and the buffing or drying pad and overlying covering sheet may be gripped to move the applicator pad over the surface to be treated.

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