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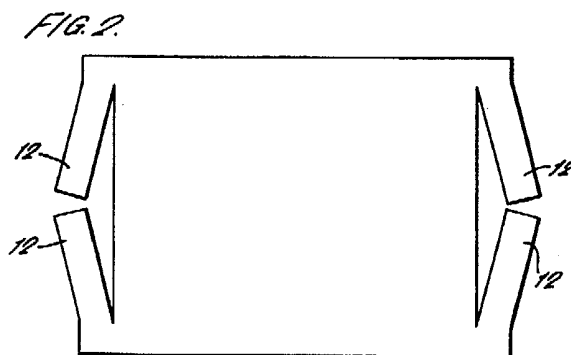
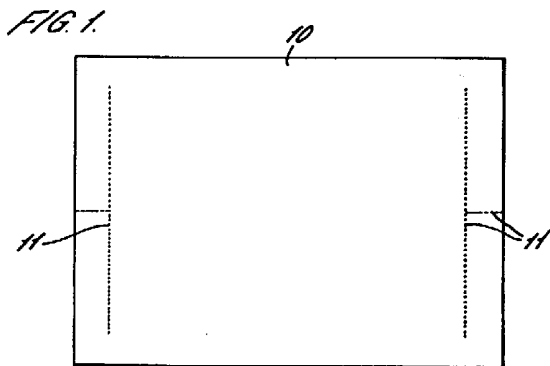
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UK CL (Edition S) **A4F**
INT CL⁷ **A47L 13/16 13/17 13/18 13/19 13/24 13/44 13/46**
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(54) Abstract Title
Improvements in disposable cleaning cloths

(57) The invention relates to improvements in cleaning devices, and in particular to disposable cleaning cloths which are capable of being attached to brooms and mops and the like. The cleaning cloth 10 comprises a substantially planar sheet having at least two ties 12 formed integrally with said cloth, in which the ties are at least partially separable from the cloth e.g. by the perforations 11.



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FIG. 1.

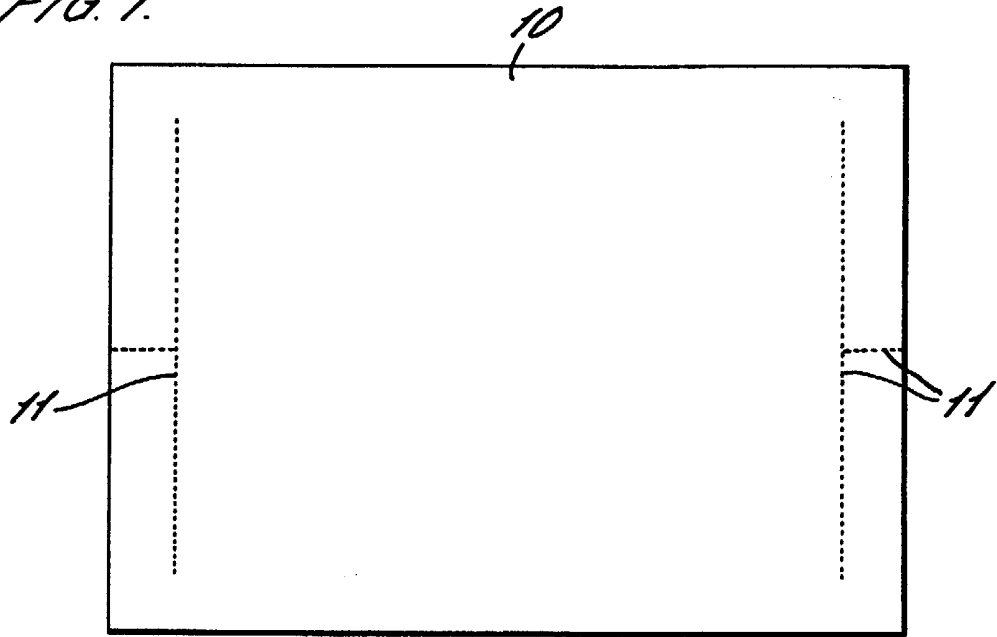


FIG. 2.

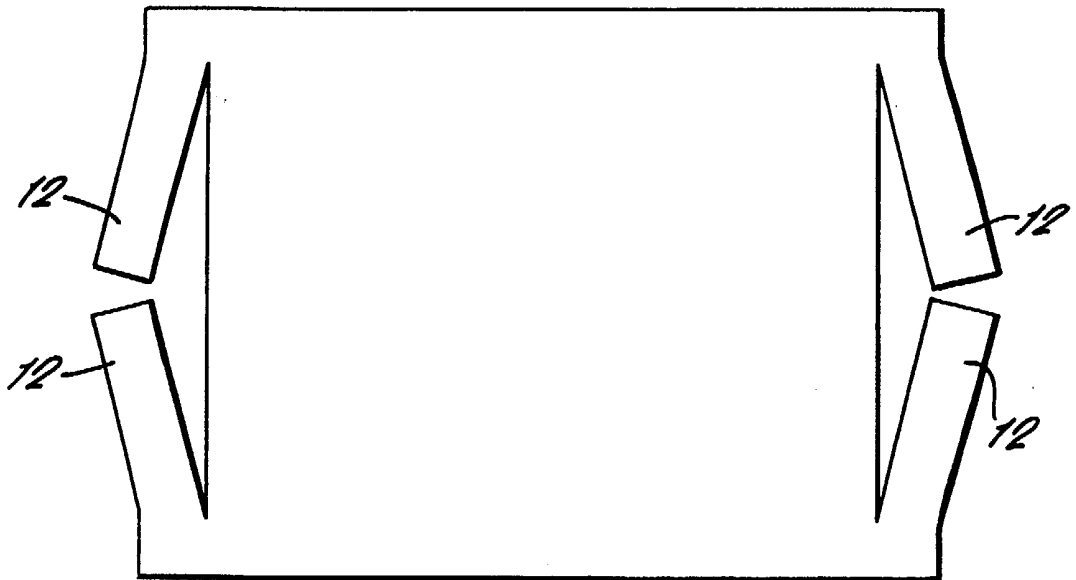


FIG. 3.

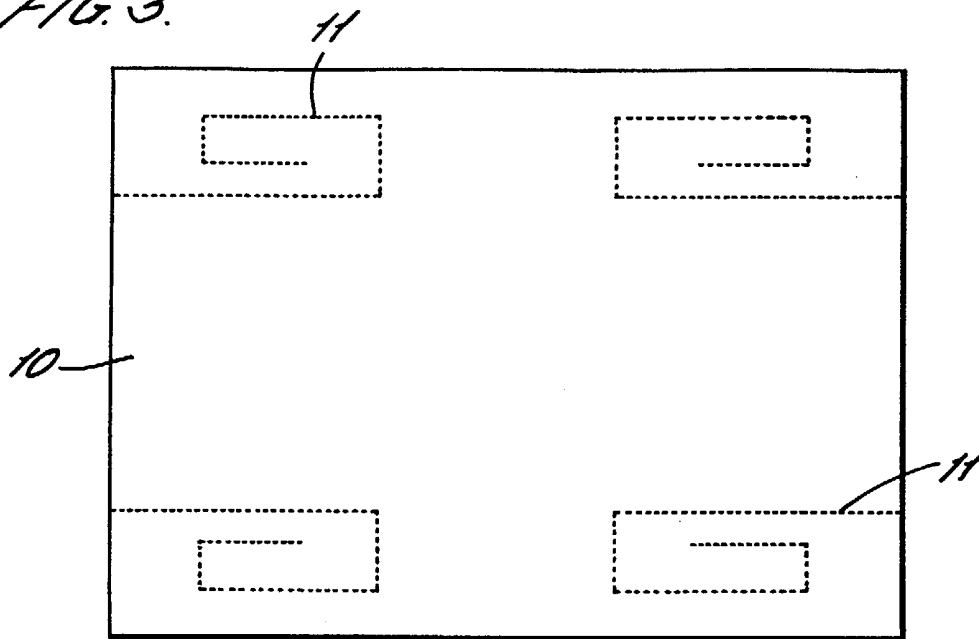
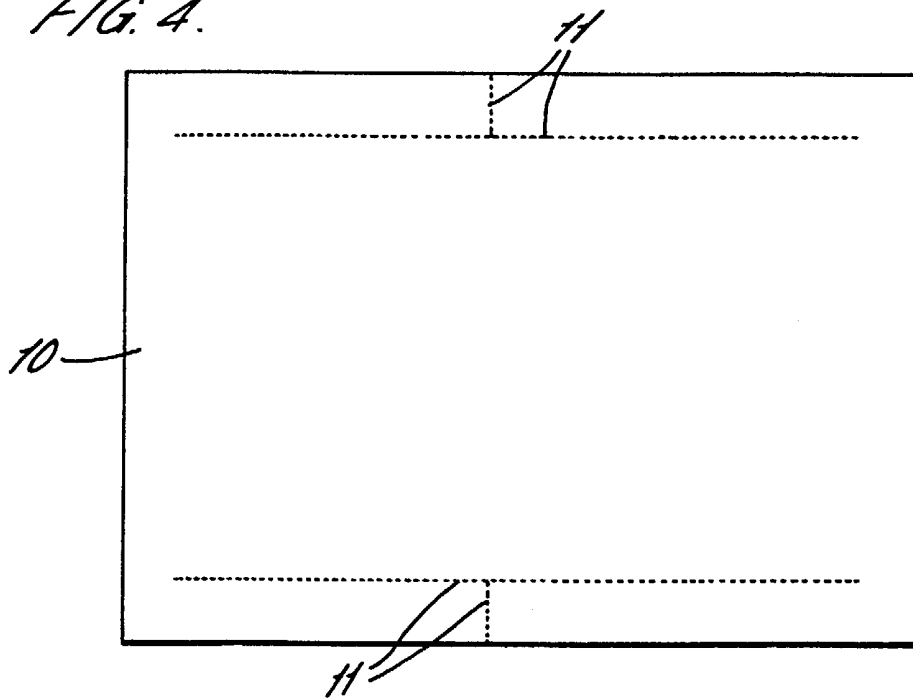


FIG. 4.



IMPROVEMENTS IN CLEANING DEVICES

The invention relates to improvements in cleaning devices, and in particular to disposable cleaning cloths
5 which are capable of being attached to brooms and mops and the like.

There are available on the market a number of disposable cloths or wipes used for domestic cleaning
10 which may be dry and use anti-static properties to pick up dust and the like, or may be impregnated with a formulation that could clean, polish or deliver another benefit. It is particularly convenient for the user to be able to attach such cloths to brooms or mops or other
15 such handled tools to provide a greater reach when cleaning ceilings or other far off places, or to prevent the user from having to kneel on the floor whilst cleaning the floor.

20 Such cloths are typically attached to such brooms or mops by clip arrangements at one or more edges. However, as the cloth is not firmly attached, when the broom or mop is lifted from the floor, the cloth may be left behind therefore making it difficult to move around the
25 floor. Thus the cleaning operation is less effective. The use of such cloths is restricted to brooms having the appropriate clips and there is also a cost involved in providing clips on the brooms.

30 It is therefore an object of the present invention to provide a disposable cleaning cloth which can be used

on its own or which can conveniently be attached to another cleaning device such as a broom or mop.

The invention therefore provides a cleaning cloth
5 comprising a substantially planar sheet having at least two ties formed integrally with said cloth, in which the ties are at least partially separable from the cloth.

Preferably the at least two ties are at least
10 partially separable from the cloth by means of one or more lines of perforations.

The cleaning cloth is preferably provided with four
15 ties.

The cloth is preferably substantially square or rectangular and the ties are formed at corners of the cloth.

20 In a preferred embodiment of the invention the ties can be at least partially separated from the cloth by tearing.

The ties preferably remain attached to the cloth.

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The cloth may be made from a sponge material.

The cloth may be dry or impregnated with a cleaning or an anti-static formulation.

30

Preferably each cloth is separably attached to at least one adjacent cloth.

The invention also provides a cleaning device
5 comprising a handle and a head and a cleaning cloth attached to the head by means of the at least one tie.

A preferred embodiment of the present invention will now be described, by way of example only, with reference
10 to the accompanying drawings, in which:-

Fig. 1 is a plan view of a cloth according to the present invention showing one pattern of perforations;

15 Fig. 2 is a plan view of the cloth of Fig. 1 showing the ties formed from the perforated regions; and

Figs. 3 and 4 are plan views of cloths showing two alternative perforation patterns.

20 Referring first to Fig. 1, a disposable cleaning cloth 10 according to the present invention is illustrated. Typical materials used for manufacturing such cloths 10 include one or more of the following
25 fibres; cotton, cellulose, wool, polypropylene, polyethylene, acetate, polyamide, viscose, polyacrylonitrile. However, the invention is not restricted to these fibres. They may be woven or otherwise formed and can have reinforcing threads woven
30 through them. The cloth 10 may be dry and have anti-

static properties and/or may be impregnated with formulations such as:

For Cleaning

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Cleaning

	Sodium lauryl sulphate		3%
	Ethoxylated alcohol		0.3%
10	Butoxypropanol		4%
	Citric acid		0.2%
	Ethanolamine		1%
	Fragrance		0.1%
	Preservative		0.01%
15	Water	to	100%

Antibacterial cleaner

	Butoxypropanol		4%
20	Isopropyl alcohol		2%
	Ethoxylated alcohol		2%
	Benzalkonium chloride		0.5%
	Sodium bicarbonate		0.2%
	Fragrance		0.1%
25	Preservative		0.01%
	Water	to	100%

Polish

30	Carnauba wax		0.5%
	Polyethylene wax		1.0%

	Sorbitan ester		0.6%
	Ethoxylated Sorbitan ester		2%
	Low aroma solvent 160/190°C		4%
	Fragrance		0.1%
5	Water	to	100%

The cloth 10 may also be impregnated with an antistatic formulation. The cloth 10 may be of any convenient shape for polishing; typically they are square
10 or rectangular although the invention is not limited to such shapes. Preferably such cloths 10 are provided each in multiples, on rolls, or in packages.

Cloth 10 is provided with an arrangement of
15 perforations 11 in a pattern which allows the user to tear the cloth 10 to produce ties 12 for tying the cloth 10 to another cleaning device, such as a broom or a mop. The pattern of perforations 11 is such that four ties 12 can be produced at the four corners of the cloth 10,
20 which ties 12 preferably remain attached to the cloth after they are formed, as shown in Fig.2. Figs. 3 and 4 provide alternative patterns which could be used, although the invention is not limited to the three illustrated patterns.

25

The size and number of the perforations is preferably selected to be suitable to allow the cloth 10 to tear with a moderate degree of force, although not sufficient to allow tearing whilst the cloth is being
30 used on its own. Alternatively, for more strenuous cleaning applications, the perforations may be desired to

act as a cutting guide for scissors. The size and number of the perforations may also be partly determined by the nature of the cloth 10 or its intended application. The length of the ties is selected such that the cloth can
5 easily be tied to a broom or mop and that will therefore be dependent on the size of the broom or mop head of which it is intended to be used.

As an example, for a cloth which is approximately 20
10 x 30cm, having the configuration of ties shown in Fig. 4, the resulting ties could be conveniently 12cm long. For the configuration as shown in Fig. 1, the ties will be shorter as they are on the shorter side of the cloth and could be in the order of 9cm long.

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Where a number of cloths 10 are provided on a roll, each cloth 10 may be joined to one or two adjacent cloths 10, by a row of perforations, which enable each cloth 10 to be torn off easily.

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CLAIMS:

1. A cleaning cloth comprising a substantially planar sheet having at least two ties formed integrally with
5 said cloth, in which the ties are at least partially separable from the cloth.
2. A cleaning cloth as claimed in claim 1 in which the
at least two ties are at least partially separable from
10 the cloth by means of one or more lines of perforations.
3. A cleaning cloth as claimed in claim 1 or claim 2 in
which the cleaning cloth is provided with four ties.
- 15 4. A cleaning cloth as claimed in claim 3 in which the
cloth is substantially square or rectangular and the ties
are formed at corners of the cloth.
5. A cleaning cloth as claimed in any one of the
20 preceding claims in which the ties can be at least
partially separated from the cloth by tearing.
6. A cleaning cloth as claimed in any one of the
preceding claims in which the ties remain attached to the
25 cloth.
7. A cleaning cloth as claimed in any one of the
preceding claims in which the cloth is made from a sponge
material.

8. A cleaning cloth as claimed in any one of the preceding claims in which the cloth is dry or impregnated with a cleaning or an anti-static formulation.

9. A plurality of cleaning cloths as claimed in any one
5 of the preceding claims in which each cloth is separably attached to at least one adjacent cloth.

10. A cleaning device comprising a handle and a head and a cleaning cloth as claimed in any one of the preceding
10 claims attached to the head by means of the at least one tie.

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INVESTOR IN PEOPLE

Application No: GB 0122101.9
Claims searched: 1-10

Examiner: Dr Jonathan Corden
Date of search: 2 November 2001

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): A4F

Int Cl (Ed.7): A47L 13/16, 13/17, 13/18, 13/19, 13/24, 13/44, 13/46

Other: Online: WPI, EPODOC, PAJ

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
A	EP 0613649 A1 (GUASCH) Whole document	
A	WO 96/10356 A1 (OLSON) See fig 12 especially	

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
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