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(54) Mop pad holder.

(57) A collapsible mop pad holder comprises two opposite end leaves, 1 and 2 respectively, which are separately pivotally attached to an intermediate section 3. An articulated handle mounting 19 is attached to the leaf 1, and a latch arrangement 8,9,10 when latched is operative to retain the leaves 1 and 2 in a generally aligned erected condition of the holder. When the latch means are freed to collapse the holder the leaves 1 and 2 hang down from the intermediate section 3.

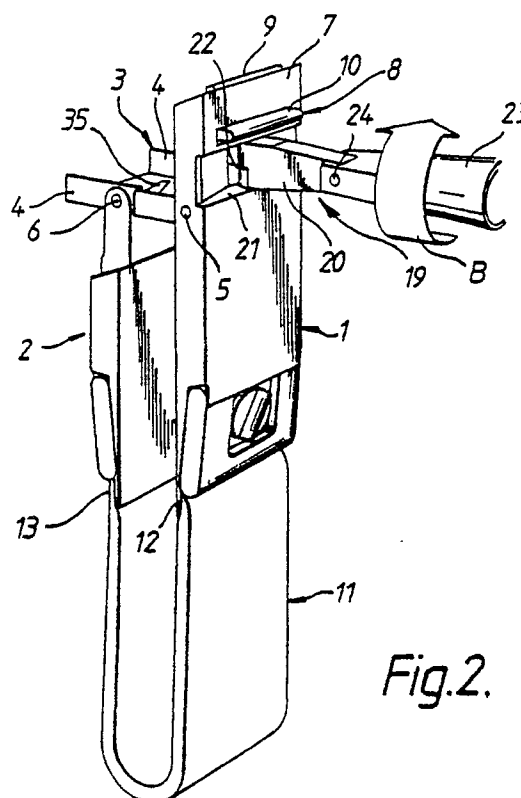


Fig.2.

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MOP PAD HOLDER

The invention relates to a mop pad holder for an elongate mop pad and which is collapsible to facilitate the removal and replacement of a pad and/or to allow the mop to hang down for wringing out purposes.

It is known for such a mop pad holder to comprise an intermediate section to which two opposite end leaves are pivotally attached, latch means being operative to hold the leaves in generally aligned positions when the holder is in the erected condition. In the collapsed condition of the holder, after release of the latch means, the leaves hang down from the intermediate section so that an attached pad hangs down in a folded loop which can be passed through the rollers of a wringer, for example.

The prior holders are mainly designed for the mopping of large surface areas, and have a handle mounting secured to the intermediate section. To facilitate re-erection it has been proposed that one end leaf should be extended inwardly beyond the handle mounting so that the handle, by appropriate positioning, can be used to support that end leaf. One object of the present invention is to provide an improved construction which can provide the advantages of the prior proposal and which is in particular, but by no means exclusively, suited to a small hand-held design usable for window cleaning, for example.

According to one aspect of the invention a collapsible mop pad holder comprises two opposite end leaves pivotally attached to an intermediate section, an articulated handle mounting attached to one of the end leaves and a latch arrangement operative to retain the leaves in a generally aligned erected condition of the holder. Preferably the two leaves hang down equally from the intermediate section when the holder is collapsed.

The handle mounting is preferably disposed centrally of the holder when the latter is in the erected condition, and to this end said one leaf may be extended at the inner end beyond its pivotal attachment to the intermediate section. The handle mounting preferably comprises a connecting block which is attached to the one leaf for pivotal movement about a first axis, and which is pivotally attached to a main portion for relative pivotal movement about a second axis at right angles to the first axis. This provides a universally-jointed handle mounting, and the main portion may be suitably shaped for holding in the hand for close-up use by an operative when window cleaning, for example. In addition to being usable as a handle for hand-held use of the holder, the main portion may be formed as a socket to receive a

normal mop handle.

Said first axis, about which the connecting block pivots relative to said one leaf, is conveniently aligned with the longitudinal axis of the holder. This facilitates use of the handle mounting to support said one leaf in a suitable position to facilitate re-erection of the mop holder when in the collapsed condition.

The latching means preferably comprise a latch member mounted on said one end leaf for latching engagement with the other end leaf as the two leaves reach the generally aligned erected position. The latch member may be a slidable catch positioned so as to be operable, for latch release, by the thumb or forefinger of a hand holding the pad holder by said main portion of the handle mounting used as a handle.

Attachment of the mop pad to the holder may be by means of "Velcro" hook-and-loop type fastening material, and such fastening material may be attached at each end of the pad for detachable attachment to complementary material fixed at the ends of the end leaves, and detachable clips to which said complementary material is attached may be attachable to the end leaves. The latter may have end bars around which the ends of the pad can alternatively be looped with the fastening material on the pad attaching to itself. In either case pivotal end clips may hold down the Velcro-attached ends of the pad, and stripping means may be incorporated so that pivoting of the end clips away from their holding-down positions "strips" the Velcro-type attachments to free the ends of the pad.

With a longer holder Velcro-type attachment of the centre of the pad to the holder may be employed and, so that the pad will hang down suitably to enter a wringer when the holder is collapsed, means may be provided to strip this centre Velcro attachment. Thus, according to another aspect of the invention a collapsible mop pad holder, comprising two opposite end leaves pivotally attached to an intermediate section, employs centre attachment of the mop pad by means of hook-and-loop type fastening material and collapsing movement of the holder serves to strip the centre attachment of the mop pad so that the latter is freed to hang down from the collapsed holder suitably for use with a wringer.

Preferably hook-and-loop type attachment material at the centre of the mop pad engages complementary material fixed to one of the end leaves and accessible, for such engagement, through an aperture in the intermediate section of the holder. Thus, the centre attachment of the pad is automati-

cally stripped on collapsing of the holder as the end leaf concerned and the intermediate section move apart in the region of said aperture.

The invention will now be further described with reference to the accompanying drawings which illustrate, by way of example, a preferred embodiment of the invention suitable for hand-held use. In the drawings:

Fig. 1 is a perspective view of the holder with an attached pad, illustrating the manner of latch release;

Fig. 2 is view of the holder in the resultant collapsed condition;

Fig. 3 is a view at the commencement of re-erection of the holder;

Fig. 4 illustrates the re-erected condition of the holder.

Fig. 5 is a fragmentary detail view of either end of the holder;

Fig. 6 is a cross-section on the line VI-VI in Fig. 5, showing an optional pad-attachment component detached;

Fig. 7 is an inner end view of an end clip of the holder;

Fig. 8 is a cross-section on the line VIII-VIII in Fig. 7;

Fig. 9 is a detail lateral cross-section at the centre of the holder; and

Fig. 10 is a view corresponding to that of Fig. 9 but with the holder partially collapsed.

The mop pad holder illustrated is principally of moulded plastics construction, and comprises two opposite end leaves 1 and 2 pivotally attached to an intermediate section 3. The section 3 is of channel form with side flanges 4 to which the leaf 1 is attached by aligned snap-in pivot stubs such as 5. The leaf 2 is similarly attached by aligned snap-in pivot stubs such as 6, the two pivot axes being parallel and disposed laterally of the holder.

An inward extension 7 of the leaf 1 beyond the pivot stubs 5 is cut away on its underside to receive the section 3 and lies closely engaging the latter in the erected holder condition. The pivot stubs 6 are disposed inwardly of the corresponding end of the section 3, and the leaf 2 is cut away on its upper surface to receive the projecting end of the section 3 and also lies closely engaging the latter in the erected holder condition. Such close engagement of the two leaves 1 and 2 with the section 3 defines the generally aligned erected positions of the end leaves 1 and 2 which is as shown in Fig. 1.

Single point latch means, operative to latch the leaves 1 and 2 together in the erected holder condition, comprise a slidable catch member 8 which is spring loaded by a compression spring (not shown) to the latching position shown in Fig. 2 in which a latching nose 9 projects from the exten-

sion 7 of the leaf 1 for latching engagement with the leaf 2. An operating bar 10 of the latch member 8 projects from the upper surface of the leaf extension 7 for manual operation, as will be described.

5 An elongate mop pad 11 is detachably attached to the holder as illustrated in the drawings. The leaves 1 and 2 have end apertures 1a or 2a (see Fig. 5) through which end portions 12 and 13 of the pad are threaded and wrapped around end bars 1b or 2b of the leaves 1 and 2. These end portions 12 and 13 have "Velcro" hook-and-loop type self-adhering material secured to their under surfaces, so that they form self-retaining loops se-
10 curing the pad 11 to the outer ends of the leaves 1 and 2.

15 For attachment of a mop pad with more normal Velcro-type attachment strips at the ends of the pad 11, requiring complementary fastening strips on the end leaves 1 and 2, pad-attachment end clips 29 (one shown detached in Fig. 6) are clipped into the apertures 1a and 2a. These clip in under retaining ribs such as 30 moulded at the sides of the apertures 1a and 2a, and the complementary fastening strips 31 are fixed to their upper surfaces.

25 Moulded end clips 14 and 15, pivotally mounted at the inner ends on the leaves 1 and 2, respectively press against the end portions 12 and 13 of the pad 11 to hold them down and ensure secure attachment of the pad. These clips 14 and 15 are retained in the holding-down positions shown by means of turnbuckle fastenings 16 and 17, which engage the end leaves 1 and 2 through apertures 1c and 2c, respectively, in the end leaves. The end clips 14 and 15 are spring loaded, by torsion springs (not shown) at the pivot axes, against retention by the fastenings 16 and 17, to released positions inclined away from the respec-
30 tive leaves 1 and 2. Thus, turning of the fastenings 16 and 17 to released positions results in the end clips opening, so that they do not impede attachment or detachment of a mop pad such as 11. The end clips 14 and 15 have opposed and integrally moulded pivot stubs 14a and 15a which face inwardly and engage pivot bores 1d and 2d in the respective leaves 1 and 2.

45 A universally-jointed articulated handle mounting 19 comprises a connecting block 20 which fits into a lateral recess 21 in the upper side of the leaf extension 7 and is pivotally attached to that leaf at 22 so as to define a first pivot axis disposed longitudinally of the holder. The lateral recess 21 is disposed centrally of the holder when the latter is in the erected condition. A main portion 23 of the handle mounting 19 is pivotally attached to the outer end of the block 20 at 24 to define a second pivot axis at right angles to said first pivot axis. The portion 23 provides a socket 25 for fitting the holder to a long mop handle, or it can be used as a
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short handle for hand-held use of the holder, being held in the hand H as shown in Figs. 1 and 4.

To ensure that the pad 11 lies flat against the under surface of the erected holder it has a central Velcro-type attachment strip 32 (see Fig. 10) which attaches to a complementary strip 33 on a projection on the under side of the leaf extension 7 provided by a clip-in member 34. The member 34, in the erected holder condition as shown in Fig. 9, projects flush with the under surface of the holder through an aperture 35 in the section 3.

Fig. 1 illustrates how, with the erected holder held in the hand H, the latch member projection 10 can be moved by the thumb in the direction of the arrow A to initiate latch release. This results in collapse of the holder under gravity, the mop pad 11 hanging down in a symmetrical folded loop, for wringing out purposes for example, when the leaf 1 is held vertical as shown in Fig. 2. It will be noted that for collapse of the holder the latter is initially held with the leaf 1 facing towards the user. As the leaf extension 7 pivots away from the section 3 the central fastening member 34 thereof leaves the aperture 35 (see Fig. 10) and, as it does so, the section 3 "strips off" the central Velcro-type fastening 32 of the pad 11 which is then free to adopt the hanging-down looped formation illustrated in Fig. 2.

When it is desired to re-erect the holder, the horizontally held handle mounting 19 is turned through 180° as shown by the arrow B in Fig. 2. This enables the configuration shown in Fig. 3 to be reached in which the leaf 1 is held supported inclined upwardly from the handle mounting with the other leaf 2 and the intermediate section 3 hanging down, under gravity, as shown. Whilst in this configuration the mop can be pressed in the direction of the arrow C against a suitable surface, for example that of a window being cleaned. This moves the parts to the erected positions, in which the nose 9 of the latch member 8 automatically latches into a latching recess 26 in the inner end of the leaf 2. Thus the leaves 1 and 2 are again latched together to retain the holder in the erected condition as shown in Fig. 4. As the pad 11 is pressed against the holder, the central Velcro-type fastening strip 32 is pressed against and thus re-engaged with the complementary fastening strip 33 on the projecting member 34 in the leaf 1 as it comes flush with the under surface of the holder through the aperture 35 in the section 3.

Claims

1. A collapsible mop pad holder comprising two opposite end leaves pivotally attached to an intermediate section, a handle mounting attached to one of the end leaves and a latch arrangement

operative to retain the leaves in a generally aligned erected condition of the holder.

2. A mop pad holder according to claim 1, wherein the two leaves hang down equally from the intermediate section when the holder is collapsed.

3. A mop pad holder according to claim 1 or claim 2, wherein the handle mounting is disposed centrally of the holder when the latter is in the erected condition and said one leaf is extended at the inner end beyond its pivotal attachment to the intermediate section.

4. A mop pad holder according to any one of the preceding claims, wherein the handle mounting comprises a connecting block which is attached to said one leaf for pivotal movement about a first axis, and which is pivotally attached to a main portion of the handle mounting for relative pivotal movement about a second axis at right angles to the first axis.

5. A mop pad holder according to any one of the preceding claims, wherein the latching means comprise a sliding catch mounted on said one end leaf for latching engagement with the other end leaf as the two leaves reach the generally aligned erected position, and positioned so as to be operable for latch release by the thumb or forefinger of a hand holding the pad holder by said main portion of the handle mounting used as a handle.

6. A mop pad holder according to any one of the preceding claims, wherein attachment of the mop pad to the holder is by means of "Velcro" hook-and-loop type fastening material, and such fastening material is attached at each end of the pad for detachable attachment to complementary material fixed at the ends of the end leaves, with detachable clips to which said complementary material is attached being attachable to the end leaves.

7. A mop pad holder according to any one of the preceding claims, wherein attachment of the mop pad to the holder is by means of "Velcro" hook-and-loop type fastening material, and such fastening material is attached at each end of the pad, and the end leaves have end bars around which the ends of the pad can be looped with the fastening material on the pad attaching to itself.

8. A mop pad holder according to claim 6 or claim 7, wherein pivotal end clips hold down the Velcro-attached ends of the pad.

9. A mop pad holder according to claim 8, wherein stripping means are incorporated so that pivoting of the end clips away from their holding-down positions "strips" the Velcro-type attachments to free the ends of the pad.

10. A collapsible mop pad holder comprising two opposite end leaves pivotally attached to an intermediate section, and providing centre attachment of the mop pad by means of hook-and-loop

type fastening material with the arrangement such that collapsing movement of the holder serves to strip the centre attachment of the mop pad so that the latter is freed to hang down from the collapsed holder suitably for use with a wringer.

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11. A mop pad holder according to claim 10, wherein hook-and-loop type attachment material at the centre of the mop pad engages complementary material fixed to one of the end leaves and accessible, for such engagement, through an aperture in the intermediate section of the holder.

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Neu eingereicht / Newly filed
Nouvellement déposé

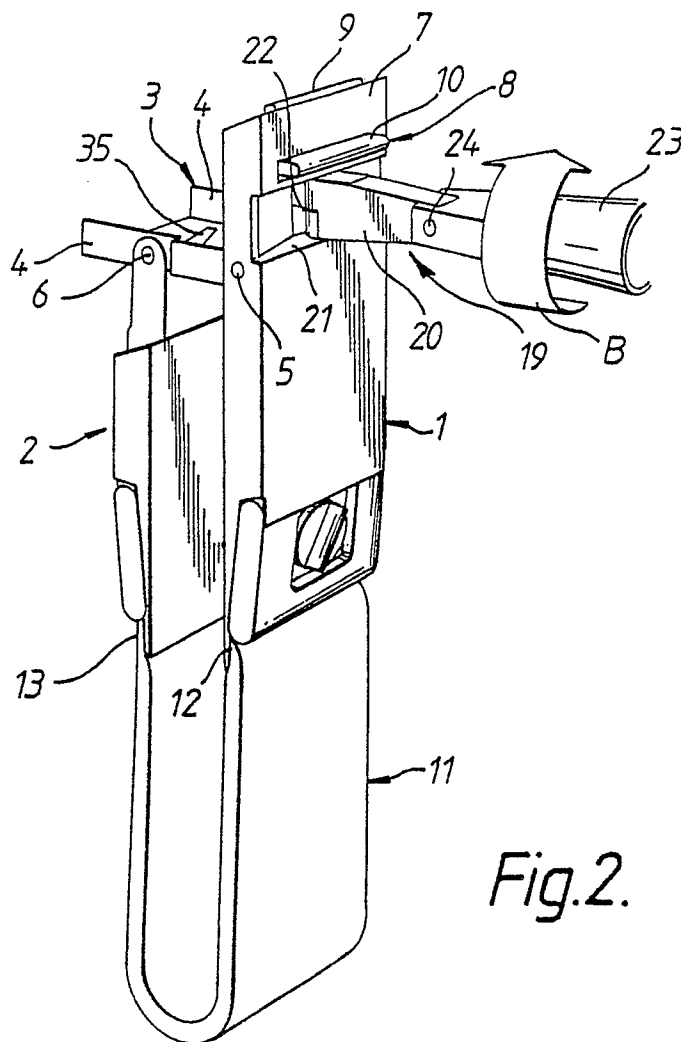
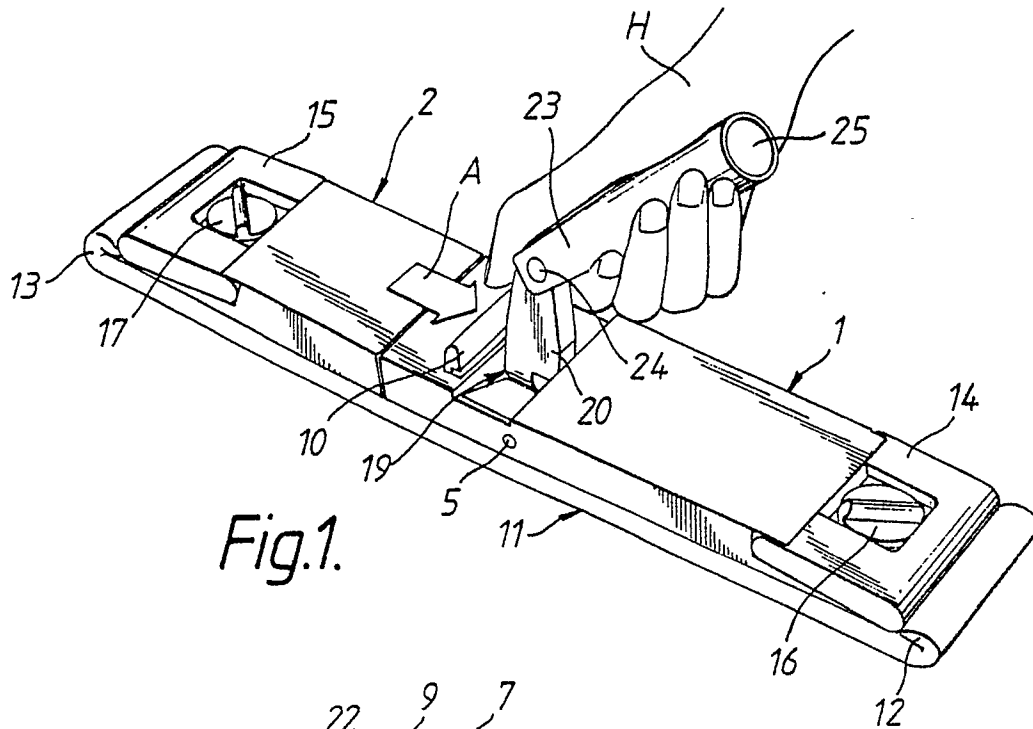


Fig.3.

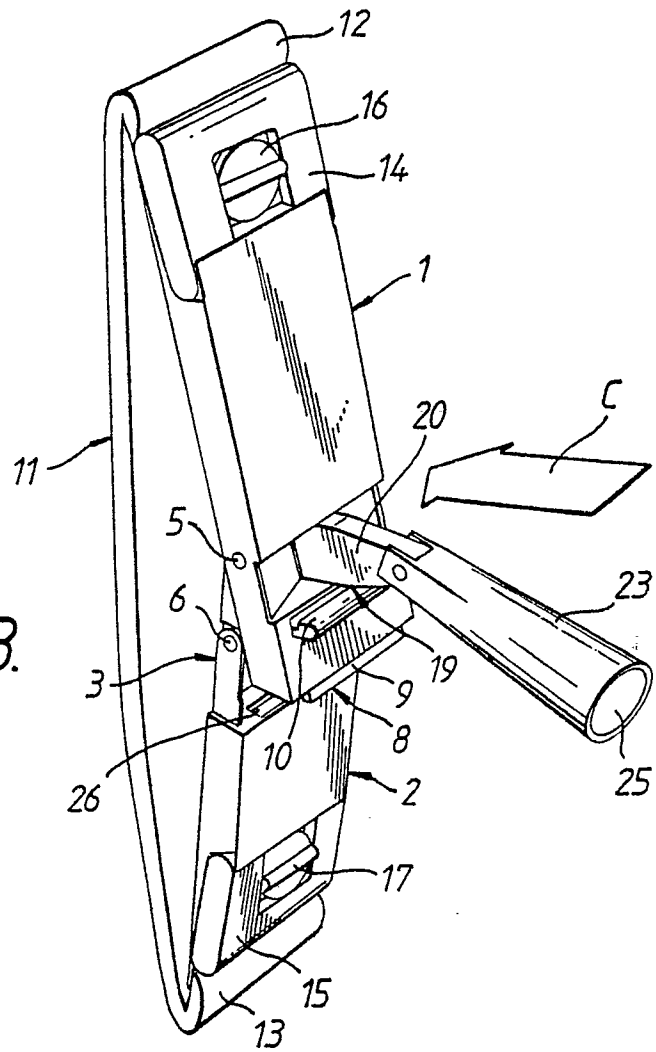
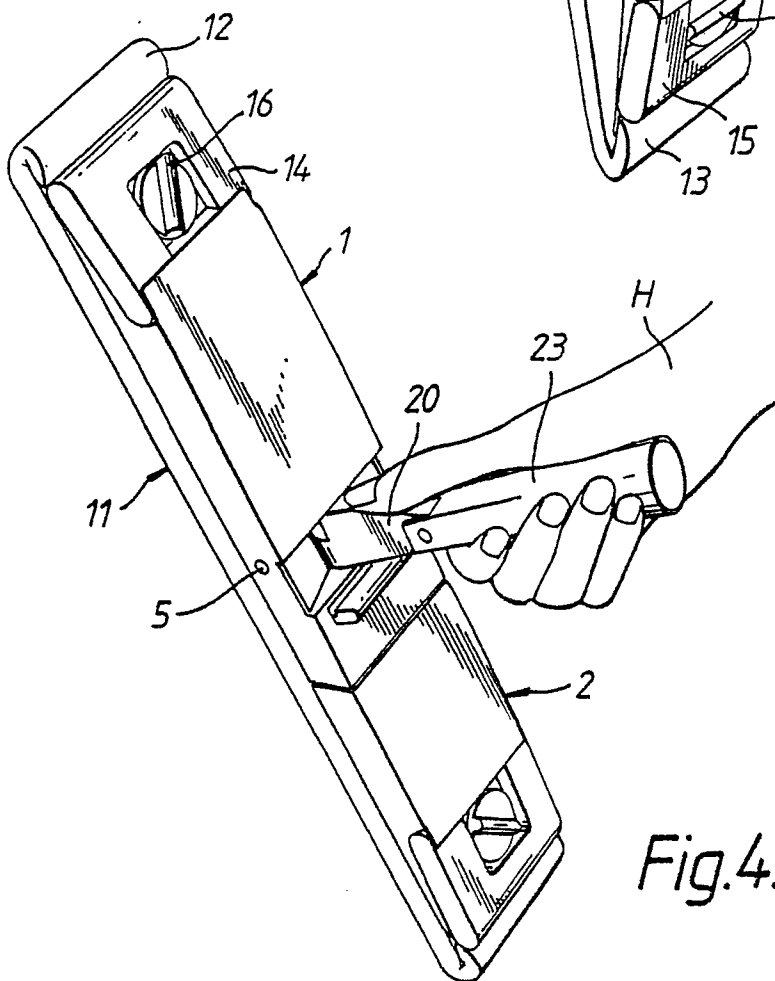


Fig.4.



Neu eingereicht / Newly filed
 Nach dem Stand der Technik

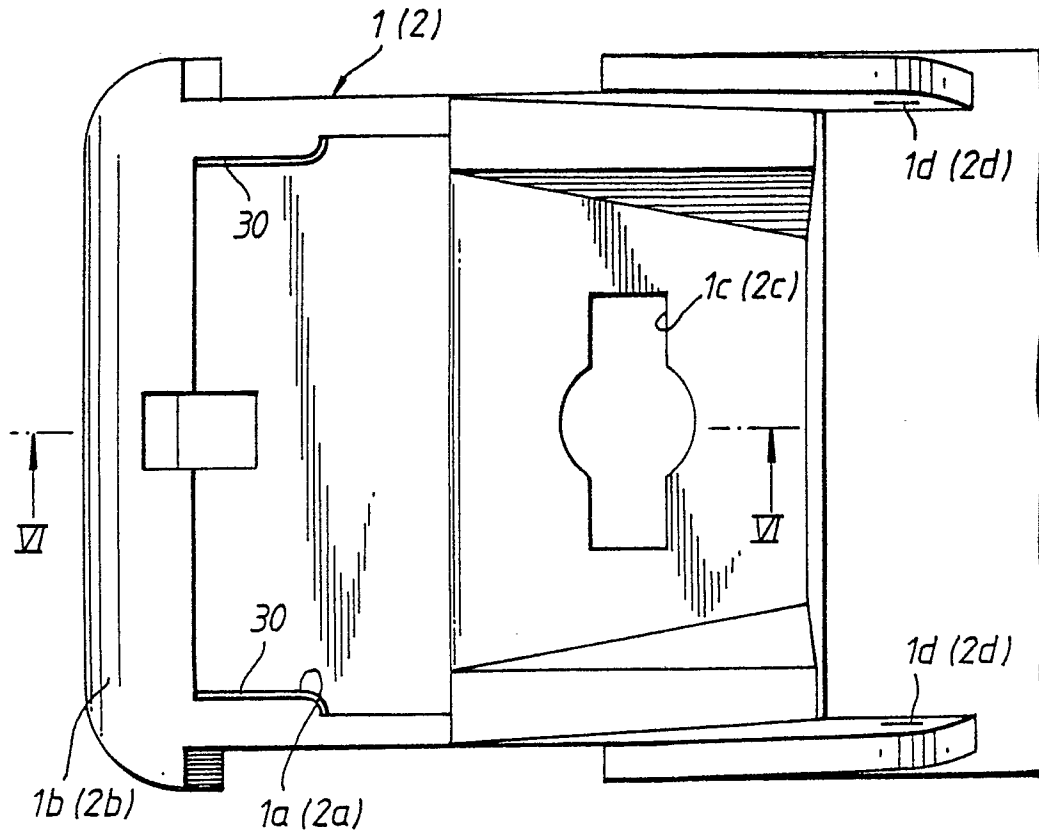


Fig. 5.

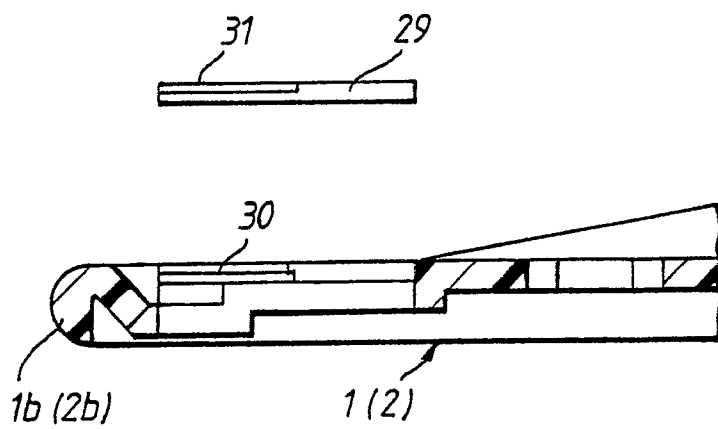
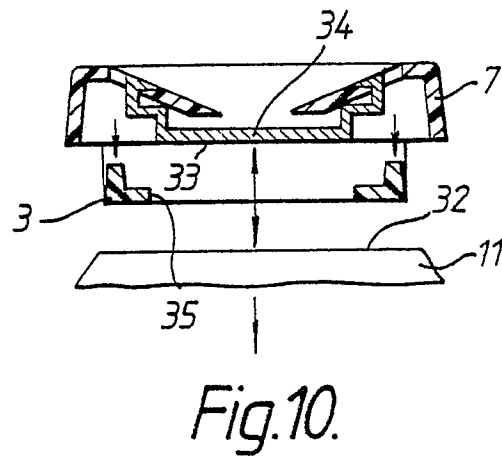
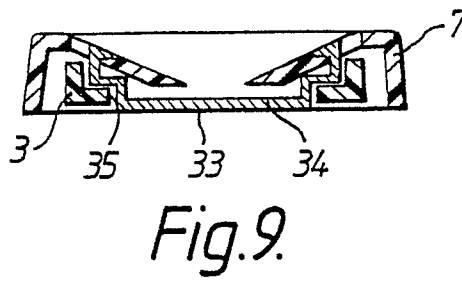
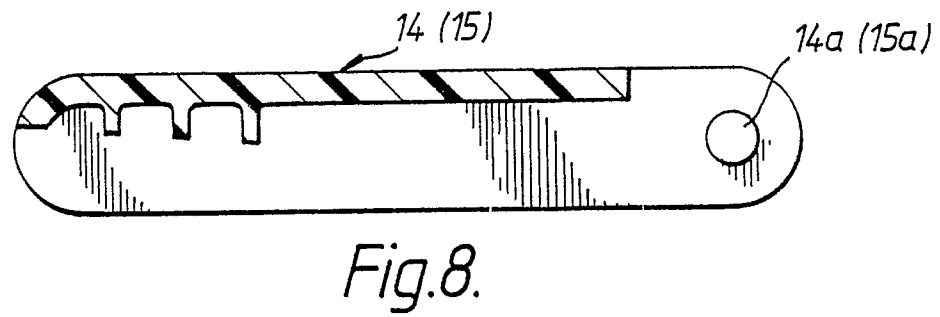
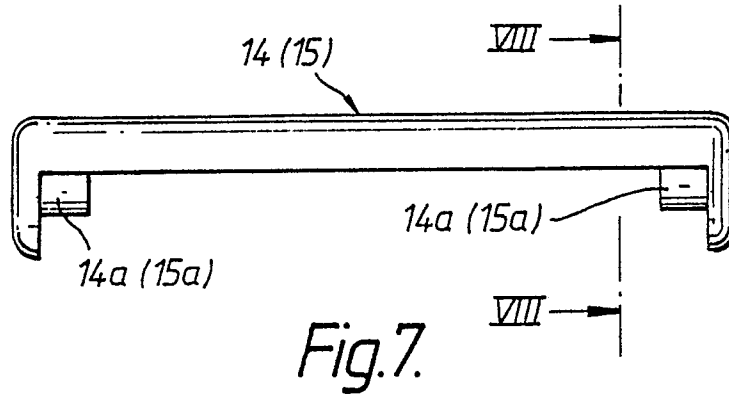


Fig. 6.





DOCUMENTS CONSIDERED TO BE RELEVANT			EP 90303117.7
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.')
X	<u>EP - A1 - 0 307 212</u> (SCOT YOUNG SERVICE SYSTEMS LTD) * Totality * --	1	A 47 L 13/258
A	<u>US - A - 1 392 741</u> (BONSALL) * Totality * --	1, 2	
A	<u>GB - A - 2 055 040</u> (LUNDGREN) * Totality * ----	1, 2	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.')
Place of search VIENNA			Date of completion of the search 13-06-1990
Examiner HANSI			CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document