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(54) Assembly and suspension back plate for flip-chart pads.

(57) A flip-chart pad suspension plate (10) comprises an elongate rigid member (11) having symmetrically disposed suspension holes (13) to attach it to a support (26). The flip-chart pad (16) is constructed from separate display sheets (24,25) which are perforated to receive respective limbs (18) of C-shaped elements (15) snap engageable within receiving through holes (17) in the elongate member (11). The suspension plate (10) has a hand grip portion (14) disposed centrally and hook-like end formations (27) for mounting on a storage rack (28).

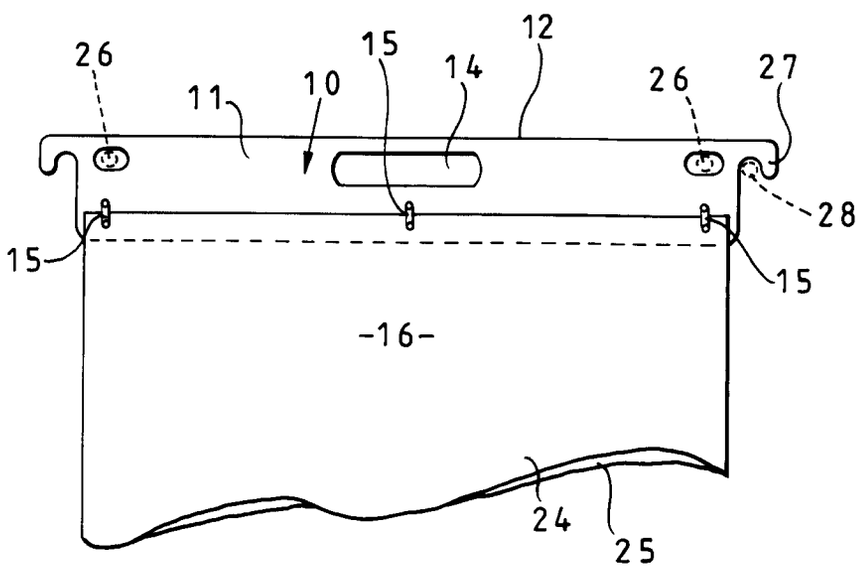

FIG 4

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This invention relates to flip-charts and more particularly to flip chart pads.

Flip-charts are conventionally used for presentations such as sales conferences, school lessons, lectures or training demonstrations, all of which are referred to as "presentations" in the following description.

A conventional flip-chart pad comprises a plurality of sheets, typically forty-five to fifty sheets, of large paper, bound together along one edge which becomes the upper edge in use. The binding is permanent and is achieved by the use of glue, staples, binding tape or other conventional means.

The presenter pre-prepares or writes on the sheets of the flip-chart pad and, when he has finished with a particular sheet, it is flipped over the bound edge so as to reveal the next sheet. The flip- chart pad is conventionally suspended from a proprietary form of easel or stand but could be suspended in some instances from a blackboard frame, rail or wall, depending on available facilities. In some conventional easels, the top of the flip-chart is gripped by a large clamp arrangement and a pair of spigots project from the easel through a pair of through holes provided in the flip-chart pad for extra support and location. In other easels, the flip-chart pad is secured by threaded inserts screwed into the spigots.

The present flip-chart arrangements have certain disadvantages, chiefly the lack of flexibility in use. These stem partly from the construction of the flip-chart pad and partly from the suspension arrangements.

When a presenter wishes to illustrate some point in a presentation, it is straightforward for him to demonstrate on a prepared sheet of the pad or to write on the flip-chart pad and, when a sheet has been finished with, to flip it over the easel to reveal a new sheet. It is also reasonably convenient to flip back through the preceding sheets to refer again to a point made earlier in the presentation. However, a presenter cannot readily use pre-printed texts or illustrations such as photographs or diagrams or produce graphs for example, since the pad is provided with plain sheets of paper only. Any pre-printed or photographic matter for example needs to be secured to blank sheets of the pad by means of staples or adhesive before the presentation starts. If it is desired to draw a graph as part of the presentation, then suitable graph paper may need to be secured to a blank sheet in the same way, or a second flip-chart pad of graph paper may need to be substituted for the first.

If a presenter is giving a series of presentations and wishes to alter the order in which items are dealt with, it is difficult or impossible to do this with the conventional flip-chart pad. The presenter would need to flip back and forth through one or more flip-chart pads to find the correct item for his presentation.

The only way in which these problems have hitherto been resolved is by painstakingly dismantling the flip-chart pad from its binding, adding the required materials and then reassembling the pad using staples or glue. Clearly, this procedure has its limitations, being time-consuming and laborious.

Additionally, the size of the flip-chart pad is limited by the form of the suspension arrangement since, if more than forty-five or fifty sheets are provided, the radius of curvature of the sheets becomes excessive and the later sheets tend to flip back over the easel, interfering with the continued use of the pad.

Finally, it is difficult to store flip-charts conveniently since they require either to be laid flat on a horizontal surface or suspended in some way in a vertical position. They are also difficult to carry about since they are not only of substantial weight, but also tend to slide over each other, no matter in what manner they are carried.

It is an object of the present invention to provide a flip-chart pad and suspension means which overcome or reduce the foregoing disadvantages.

According to a first aspect, the invention provides a suspension plate for a flip-chart pad comprising an elongate rigid member having a substantially straight top edge, a hand grip portion positioned centrally with respect to the length of the elongate member, a pair of symmetrically disposed suspension holes adapted to be attached to a support, and a pair of symmetrically disposed detachable display sheet support means.

Viewed from a further aspect, the invention comprises a flip-chart pad comprising, in combination, a suspension plate according to the preceding paragraph and a plurality of display sheets, each sheet having aperture means engaged with said display sheet support means to secure the combination together.

An embodiment of the invention will now be described in more detail by way of example only with reference to the accompanying drawings in which

Figure 1 is a front elevational view of a suspension plate for a flip-chart pad,

Figure 2 is an enlarged side elevational view of a display sheet support means of the suspension plate,

Figure 3 illustrates alternative cross-sectional shapes of the suspension plate,

Figure 4 illustrates a flip-chart pad, shown partly broken away, incorporating the suspension plate of Figure 1.

A suspension plate is generally indicated at 10 in Figure 1 and comprises an elongate rigid member 11 having a straight upper edge 12. The rigid

member 11 has a pair of symmetrically disposed suspension holes 13, each of which is somewhat elongate to allow for variations in positioning of suspension means provided on conventional flip-chart easels (not shown) which do not form part of the present invention.

The suspension plate 10 can be secured from such a conventional easel or from nails or pegs or hooks attached to any suitable or convenient support such as a blackboard, tripod, frame or rail.

A manually engageable carrying handle 14 is provided within the material of the suspension plate in a central position close to, but spaced within, the top edge 12. Referring to Figure 4 of the drawings, showing the flip-chart pad in assembled condition, it will be seen that most or all of the hand grip portion 14 is visible so as to enable a flip-chart pad to be carried on the suspension plate 10 as well as being supported by it during a presentation.

The flip-chart pad is supported on the suspension plate by display sheet support means comprising resilient C-shaped elements shown in detail in Figure 2. In the example shown, three C-shaped elements are used to support display sheets illustrated in Figure 4 at 16.

Each C-shaped element is received in a respective pair of receiving means in the form of holes 17 symmetrically disposed along the suspension plate. It will be appreciated that two pairs of holes or more than three pairs could be provided.

Each C-shaped element has a pair of limbs 18 having outwardly facing notches 19 and feet 20. The spacing of the holes 17 is such that the border of the holes is received in the notches 19 when the C-shaped element is relaxed but, in order to insert or release the C-shaped element, the limbs 18 need to be sprung together manually so that the C-shaped element snap engages in the receiving holes 17.

Instead of receiving holes, a single slot could be provided upright in the suspension plate at each of the positions where a C-shaped element is to be received.

Although the illustrated embodiment shows resilient C-shaped elements used to clip the flip-chart pad sheets to the suspension plate, these could be substituted by for example a plurality of symmetrically disposed screw threaded fastener assemblies which could be passed through the suspension plate and display sheets.

Referring to Figure 3, the cross-section of the suspension plate may be straight as shown at 21 provided the material is sufficiently strong and rigid. Where a relatively flexible material such as injection moulded plastics or thin sheet metal is used, it may be desirable to provide stiffening formations in the form of edge flanges 22 or ribs or joggles 23.

In order to construct a flip-chart pad 16, a suspension plate of the kind referred to in detail above is used in combination with a plurality of loose display sheets 24, 25 etc. which can be assembled together by the user in any desired order. The C-shaped elements 15 are then inserted through aligned holes in the display sheets 24, 25 etc. and clipped to the suspension plate by snap engaging as described above.

The assembled flip-chart pad can then be carried using the hand grip portion 14 and can be hung on a pair of pegs or the like 26 provided on any convenient support such as a conventional flip-chart stand or easel.

In use, the sheets 24, 25 can be flipped over the straight top edge 12 of the suspension plate and, because of the shape of the C-shaped elements 15, and the fact that each of the sheets 24, 25 is separate from the next, it will be found that the sheets can readily be flipped over the top edge 12 of the suspension plate 10 without building up a large radius of curvature tending to force the lowermost sheets to flip back. This means that more than the conventional number of sheets can be housed if desired.

It will also be appreciated that, once the sheets have been assembled to form a flip-chart pad, they can readily be detached and rearranged at the convenience of the presenter if it is desired to change the order of dealing with items illustrated. Furthermore, it is possible to interleave sheets of different colours, graph paper, photographs, charts, pre-printed matter or diagrams at will.

In order to mount photographs or diagrams for example, it is possible to provide a pre-punched edge strip which can be secured to the sheet and the pre-punched holes can then be used to assemble the sheet with others on the C-shaped elements. Alternatively, transparent pockets can be provided with suitable punchings so as to receive photographs and similar matter by sliding them into the pockets and mounting the pockets as if they were single display sheets.

In order to store the flip-chart pad the ends 27 of the suspension plate are formed with downwardly turned hook formations which can be hooked over a pair of suspension bars 28, or a pair of suitably spaced nails driven into a wall for example. Alternatively, the sheets 24, 25 etc. can be removed and stored flat if desired.

It will be appreciated that each display sheet of the flip-chart pad 24, 25 only needs to be provided with a plurality of correctly spaced single apertures in order to enable the C-shaped elements to secure the sheet to the suspension plate. The punching equipment for producing such apertured sheets is therefore readily available. It will also be seen that sheets of different sizes can be used provided that

they are sufficiently large to be punched at the correct centres for the C-shaped elements.

Claims

1. A suspension plate for a flip-chart pad characterised in that it comprises an elongate rigid member (11) having a substantially straight top edge (12), a hand grip portion (14) positioned centrally with respect to the length of the elongate member (11), a pair of symmetrically disposed suspension holes (13) adapted to be attached to a support and a pair of symmetrically disposed detachable display sheet support means (15, 17).

2. A suspension plate according to claim 1 further characterised in that each display sheet support means comprises a resilient C-shaped element (15) adapted to be snap engaged in receiving means (17) of the elongate rigid member (11).

3. A suspension plate according to claim 2 further characterised in that each receiving means comprises a pair of through holes (17) adapted to receive respective ends of one of said C-shaped elements (15).

4. A suspension plate according to claim 1 further characterised in that each display sheet support means comprises a two part screw threaded fastener assembly.

5. A suspension plate according to any preceding claim further characterised in that the elongate rigid member (11) has a pair of end formations (27) adapted to engage storage means (28).

6. A suspension plate according to claim 5 further characterised in that the end formations (27) are downwardly facing hooks.

7. A suspension plate according to any preceding claim further characterised in that more than two display sheet support means (15,17) are provided.

8. A flip-chart characterised in that it comprises, in combination, a suspension plate (10) according to any preceding claim and a plurality of display sheets (24, 25), each sheet (24,25) having aperture means engaged with said display sheet support means (15) to secure the combination together.

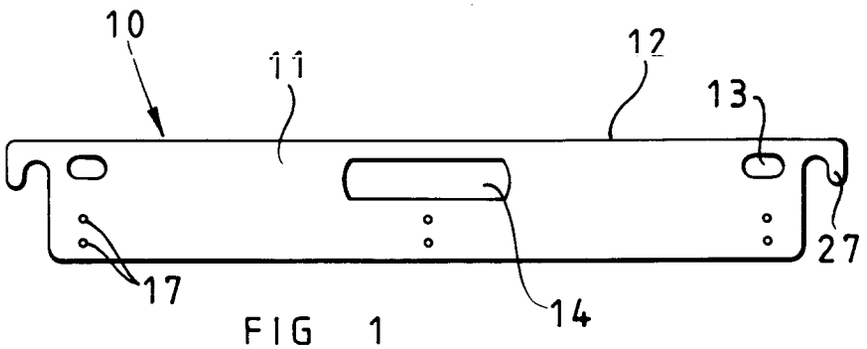

FIG 1

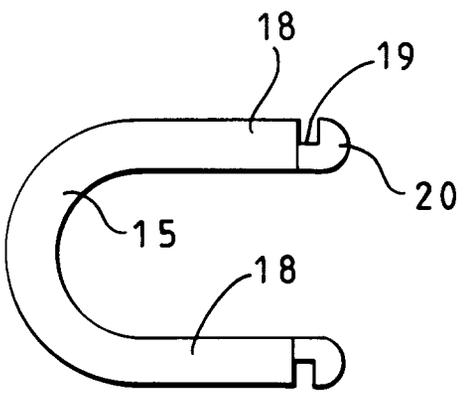

FIG 2

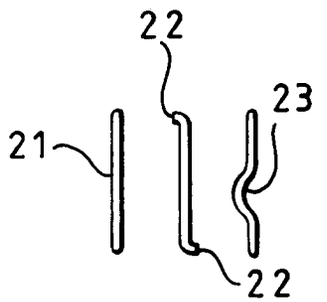

FIG 3

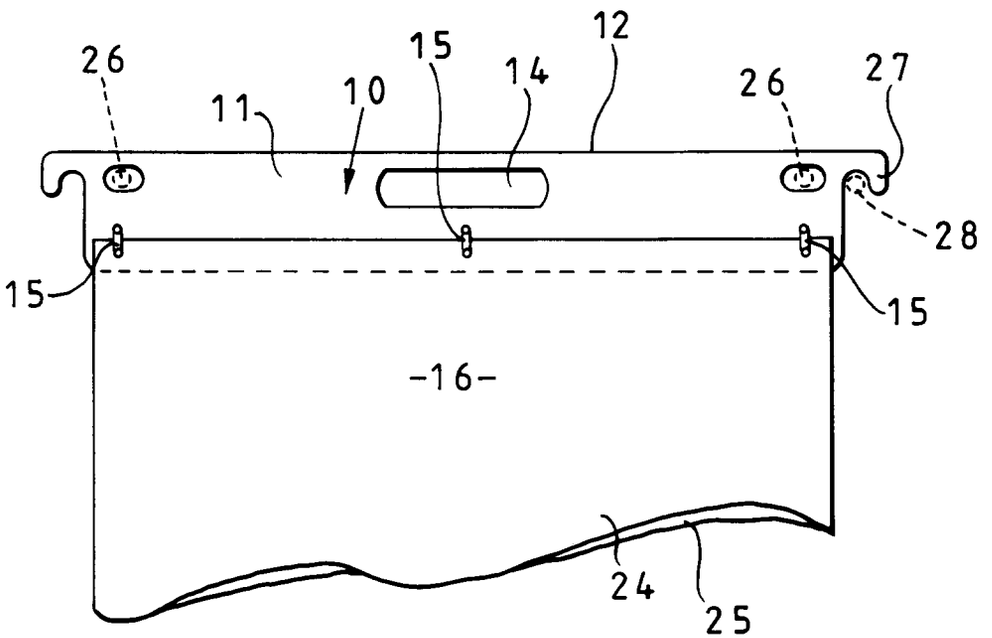

FIG 4

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 30 0766

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	DE-A-3 240 507 (HUNKE & JOCHHEIM) * page 4, last paragraph - page 5, last paragraph; figures *	1-3,5-8	B42F15/00 B42F13/16
Y	FR-A-1 257 100 (TISON) * abstract; figures *	1-3,5-8	
Y	FR-A-415 871 (CANGARDEL) * the whole document *	1,4-6,8	
Y	DE-U-8 111 417 (ATLANTA HOOGEZAND) * the whole document *	1,4-6,8	
A	FR-A-1 035 646 (NOGRET-GUYOT) * the whole document *	1-3,7	
A	US-A-3 545 112 (PERSHING ET AL.) * abstract; figures 1,2 *	1,7,8	
A	EP-A-0 136 075 (DAHLE DESIGN) * claim 7; figures 4,5 *	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	FR-A-2 154 146 (FIRMA UNIMATRONIC WIHLELM) * claim 1; figures 1,3 *	1	B42F B42D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	15 SEPTEMBER 1992	PERNEY Y.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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D : document cited in the application
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