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(54) **Relocatable information display instrument**

(57) The invention concerns a relocatable information display instrument which consists of a display surface, display surface tensioning means (2) and means (3) for retaining the display surface in a bent state. The display surface comprises at least one partition (1). The retaining means (3) and display surface are of symmetrical shape, the central part of the retaining means (3) is implemented as a fold (5), and the retaining means (3) is also provided with two open internal slots (6) for fastening of the display surface tensioning means (2) and with external fastener tabs (7) at the lateral ends of the retaining means (3), through which the display surface is connected to the retaining means (3). Because of the symmetry of the lateral ends of retaining means (3) and display surface edges (8), the retaining means (3) can be connected to a display surface partition edge (8) from its lateral ends.

Upon application of the relocatable information display instrument, the tensioning means (2) draws the internal slots (6) of the retaining means (3) closer to each other, thereby making the retaining means (3) shorter and drawing the display surface oval in shape.

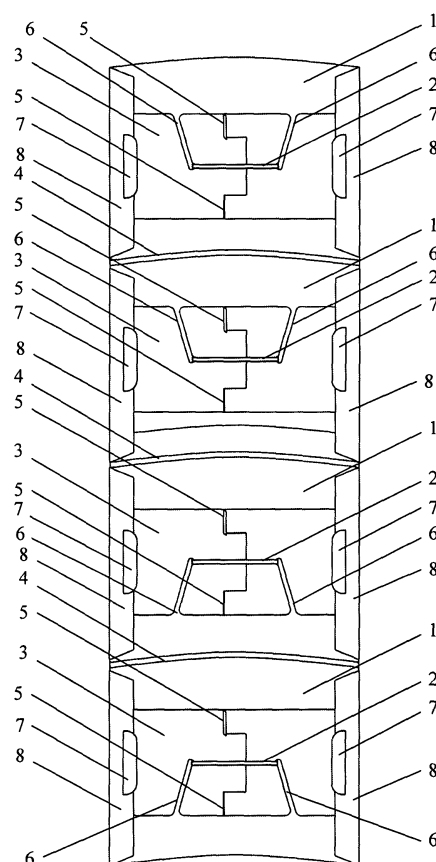


Figure 1

Description

Technical field

[0001] This invention relates to a relocatable information display instrument, which is mainly used in the vertical position and can be folded for the duration of relocation and storage. The instrument's main area of application is displaying of advertising messages in the field of commerce.

Prior art

[0002] Commerce is among the most common fields of application of relocatable information display instruments; in connection with this, in many cases, advertising messages may be provided on materials of different dimensions, for which reason information display instruments of different size are required as well. Relocatable information display instruments come in different shapes, among which instruments of oval or rectangular cross-section are the most common, as well as tube-type instruments.

[0003] An invention provided in the European Patent EP 1 395 971 is known, where retaining means have been used for bending of the display surface and keeping it bent, wherein one end of the retaining means is fastened to a first edge of the display surface by a joint and the other end of the retaining means is fastened to a second edge of the display surface by a rubber strip. The rubber strip is connected to the retaining means through apertures. The rubber strip pulls the second edge of the display surface against an edge of the retaining means, thus ensuring the desired shape of the display surface (for example, oval). The display surface is formed of different partitions and the solution shown in the invention can be folded along the joints of these partitions. The asymmetry of the display surface edges and retaining means can be considered as a disadvantage of this invention, since it renders production of the means provided for in the invention relatively difficult.

[0004] An invention described in the European Patent EP 1 926 076 is known, according to which the shape of the display surface is determined by the shape of the retaining means. The retaining means is located between the display surfaces in a perpendicular manner and is fastened to the display surfaces by single fastening means. The two-part retaining means is symmetrical and can be folded in the middle. The need for great accuracy upon the manufacture of retaining means edges can be regarded as a disadvantage of the invention, since the shape of the display surface is determined by the edge of the retaining means. Moreover, the retaining means touching the display surface may remain visible from the display surface side, which in turn establishes more stringent requirements to selection of the display surface material. Additionally, fixation strips are used in the retaining means, which prevent spontaneous folding of the retain-

ing means.

[0005] An invention shown in the Japanese patent application JP2008516276T (published on 15 August 2008) is known, where the display surface is of oval or crescent cross-section. Display surface edges are symmetrical and provided with apertures for connection of rubber strips. Retaining means are installed between rubber strips. The rubber strips pull the display surface edges against the retaining means edges, thereby ensuring the desired shape to the display surface. Here, greater dependency on the reliability of rubber strips can be regarded as a disadvantage, since the retaining means may become detached or be lost if the rubber strips should snap. Also, use of two rubber strips is required for application of a single retaining means - one at both ends of the retaining means.

Description of the invention

[0006] The objective of the invention is to provide a relocatable information display instrument characterised by symmetrical display surface edges and a retaining means of symmetrical shape intended for keeping the display surfaces in a bent state, wherein a single rubber strip is used per each of the retaining means. In the case of the solution provided for in this invention, the durability and strength of the relocatable information display instrument are maintained or improved, and the instrument can be folded for relocation, thereby limiting its external dimensions.

[0007] The invention comprises at least one display surface of durable material, display surface tensioning means, and at least one means for retaining the display surface in a bent state. The display surface comprises at least one partition, and if there are more than one partitions, the area between partitions allows folding of the display surface partitions. An resilient means may be used for pulling of the display surface into a bent state. Folding of the display surface is useful, for example, upon relocation of the information display instrument, when there is need for reduction of the overall information display instrument dimensions.

[0008] A retaining means of symmetrical shape is provided, the central part of which is implemented as a fold, which retaining means is also provided with two open internal slots for fastening of the display surface tensioning means and with external fastener tabs at the lateral ends of the retaining means. The open internal slots of the retaining means terminate in the vicinity of the horizontal axis of the retaining means, being closer to each other than the open parts of the internal slots. The edges of display surface partitions are provided with slots that are compatible with the external fastener tabs of the retaining means. Both lateral ends of the retaining means are fastened to the partition edges of display surfaces and the tensioning means is installed through the internal slots of the retaining means. Only one tensioning means is used per each retaining means. Because of the sym-

metry of the retaining means and display surface partition edges, the retaining means can be connected to a display surface partition edge from its both lateral ends, whereby the open part of the internal slots of the retaining means may end up above or below after joining of the retaining means lateral ends and display surface partition edges.

[0009] Upon application of the relocatable information display instrument, the tensioning means draws the internal slots of the retaining means closer to each other, which in turn makes the retaining means more narrow as the fold is engaged while drawing the display surface partition edges closer to each other, rendering the display surface oval in shape.

List of figures

[0010]

Figure 1 shows a cross-section of the display surface and retaining means;

Figure 2 shows the retaining means in the open position;

Figure 3 shows the retaining means without the tensioning means in the closed position (in axonometry).

Preferred embodiments of the invention

[0011] A preferred embodiment provides a solution that comprises two display surfaces of durable material, which are divided into four partitions 1, with one display surface tensioning means 2 per each partition 1, as well as four retaining means 3 for keeping the four display surface partitions 1 in a bent state. The display surface partitions 1 can be folded using the folding area 4 between the display surface partitions 1. Folding of the display surface is favourable, for example, upon relocation of the information display instrument, where reduction of the overall dimensions of the information display instrument is required. A resilient tensioning means 2 is used for drawing a display surface partition 1 into bent state - for example, a rubber strip.

[0012] A retaining means 3 of symmetrical shape is provided, the central part of which is implemented as a fold 5, which retaining means 3 is also provided with two open internal slots 6 for fastening of the tensioning means 2 and with external fastener tabs 7 at the lateral ends of the retaining means 3. The internal slots 6 of the retaining means 3 are open from the upper or lower edge of the retaining means 3 and terminate in the vicinity of the horizontal axis of the retaining means 3, being closer to each other than the open parts of the internal slots 6. The edges 8 of display surface partition 1 are provided with slots that are compatible with the fastener tabs 7 of the retaining means 3. Both lateral ends of the retaining means 3 are fastened to the partition edges 8 of display surfaces

and the tensioning means 2 is installed through the internal slots 6 of the retaining means 3. Only one tensioning means 2 is used per each retaining means 3. Because of the symmetry of the lateral ends of the retaining means 3 and edges of the display surface partition 1, the retaining means 3 can be connected to a display surface partition edge 8 from its both lateral ends, whereby the open part of the internal slots 6 of the retaining means 3 may end up above or below after joining of the retaining means 3 and edges of the display surface partition 1.

[0013] Upon application of the relocatable information display instrument, the tensioning means 2 draws the internal slots 6 of the retaining means 3 closer to each other, which in turn makes the retaining means 3 more narrow, while drawing the display surface partition edges 8 closer to each other, rendering the display surface oval in shape.

[0014] In a further preferred embodiment, a solution has been provided that differs from the solution of the previous preferred embodiment in that a tensioning means 2 consisting of non-stretching but flexible material, e.g. a string or a band is used for stationary application of the relocatable information display instrument.

[0015] In a further preferred embodiment, a solution has been provided that differs from the solutions of the previous preferred embodiments in that a tensioning means 2 consisting of rigid material, e.g. a metallic clamp, is used for holding of the fold 5 part of the retaining means 3.

Claims

1. Relocatable information display instrument comprising at least one display surface of durable material, display surface tensioning means (2), and at least one means (3) for keeping of the display surface in a bent state; the display surface comprises at least one partition (1), and if there are more than one partitions (1), the area between partitions allows folding of the display surface partitions (1); **characterized in that** the retaining means (3) is of symmetrical shape and the central part of the retaining means (3) is implemented as a fold (5), which retaining means (3) is also provided with two open internal slots (6) for fastening of the display surface tensioning means (2), which internal slots (6) are open from the upper or lower edge of the retaining means (3), and with external fastener tabs (7) at the lateral ends of the retaining means (3); the edges (8) of display surface partitions are provided with slots that are compatible with the external fastener tabs (7) of the retaining means (3); **in that** both lateral ends of the retaining means (3) are fastened to the edges (8) of display surface partitions (1) and the tensioning means (2) is installed through the internal slots (6) of the retaining means (3); and **in that** the tensioning means (2) is intended for moving the internal slots (6) of the

retaining means (3) closer to each other.

2. Instrument according to claim 1, **characterized in that** the edges (8) of display surface partitions are symmetrical in shape. 5
3. Instrument according to any of claims 1 and 2, **characterized in that** a single retaining means (3) is provided with a single tensioning means (2). 10
4. Instrument according to any of claims 1 to 3, **characterized in that** application of a resilient tensioning means (2) is made possible upon drawing of the instrument into a bent state. 15
5. Instrument according to any of claims 1 to 4, **characterized in that** application of a rigid tensioning means (2) is made possible upon stationary installation of the instrument. 20
6. Instrument according to any of claims 1 to 5, **characterized in that** application of a non-stretching flexible tensioning means (2) is made possible upon stationary installation of the instrument. 25
7. Instrument according to any of claims 1 to 6, **characterized in that** the width of the retaining means (3) is equal to the width of the display surface. 30

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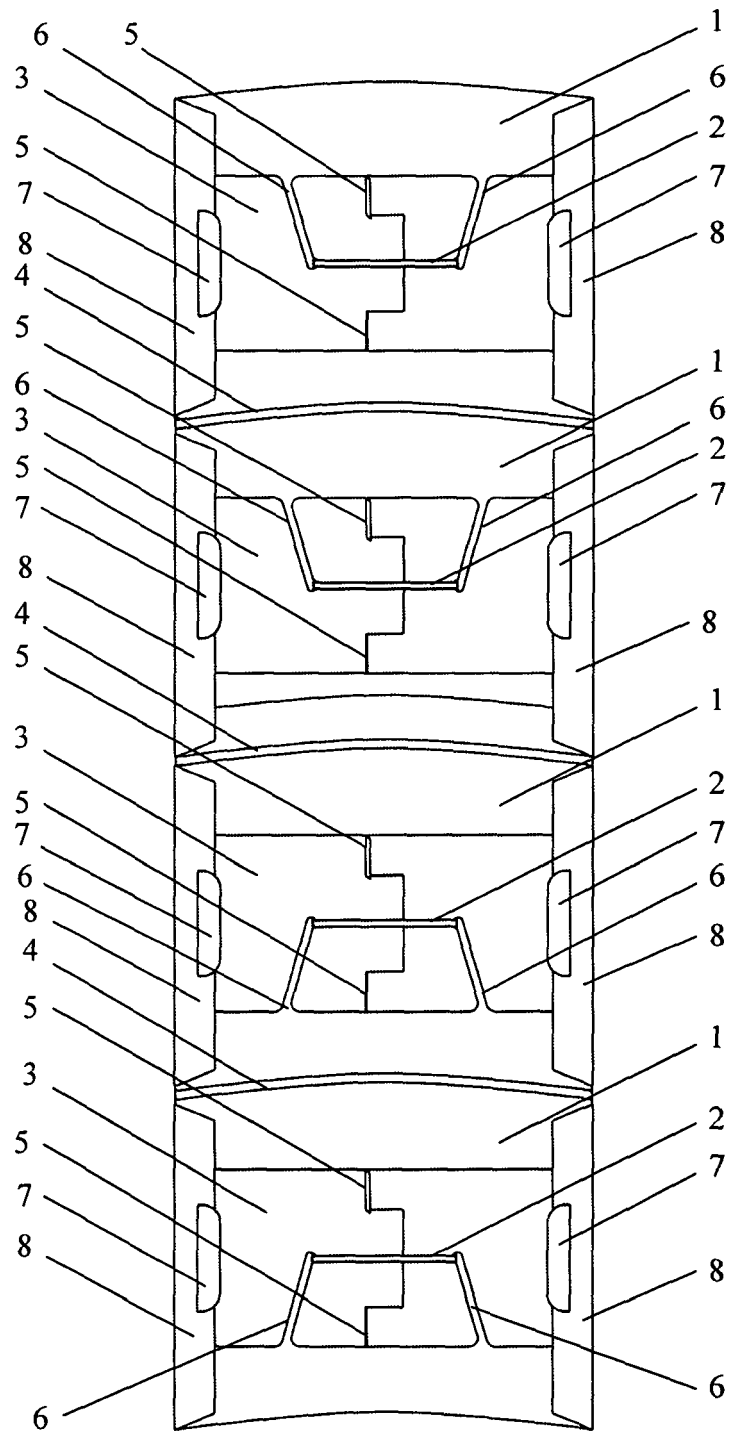


Figure 1

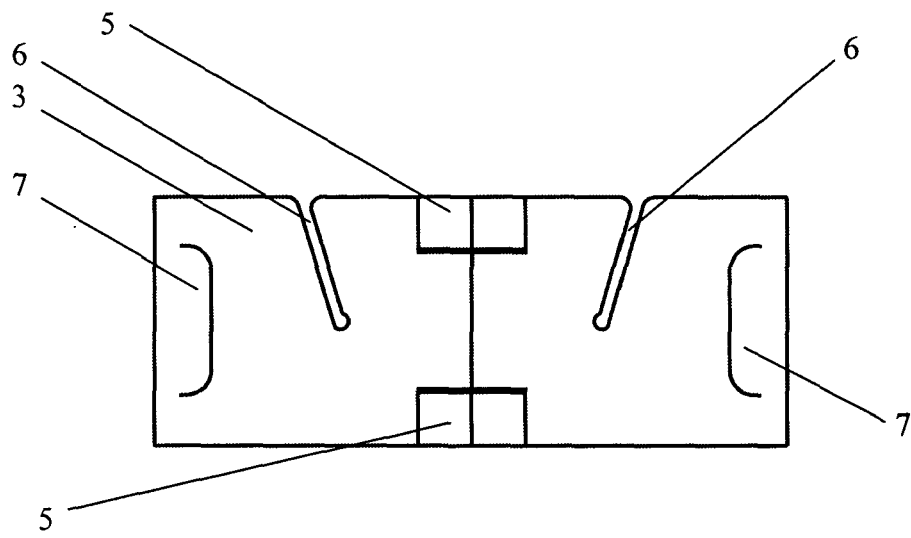


Figure 2

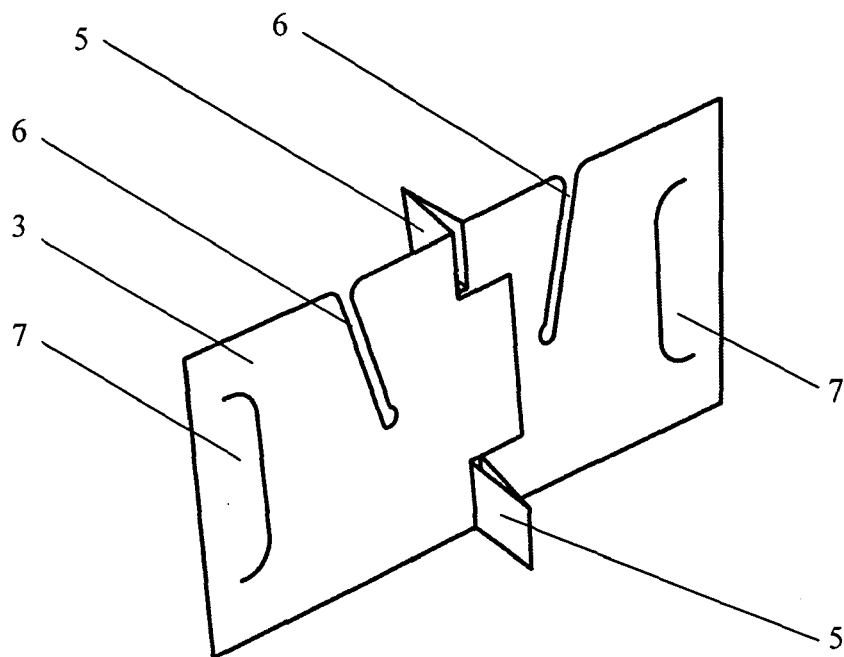


Figure 3



EUROPEAN SEARCH REPORT

Application Number
EP 09 01 2679

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 8 January 2010	Examiner Lechanteux, Alice
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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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