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(54) **Hooking device for windable boards, particularly for information displays with interchangeable boards**

Anhängungsvorrichtung für aufrollbaren Tafeln, insbesondere für Informationsanzeigevorrichtungen mit auswechselbaren Tafeln

Dispositif d'accrochage pour panneaux enroulables, en particulier pour dispositifs de présentation d'informations à planches interchangeables

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**EP-A- 0 287 268** **WO-A-95/19618**  
**DE-A- 3 826 478** **US-A- 2 195 249**

**EP 0 877 351 B1**

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## Description

**[0001]** The present invention relates to a hooking device for windable boards, particularly for information displays with interchangeable boards operation mechanism.

**[0002]** More particularly, the invention concerns a device of the above kind allowing to very easily and with precision hook the board to the dragging mechanism.

**[0003]** As it is well known, during last years a remarkable diffusion of information displays allowing the change of the message occurred, particularly in the advertising sector.

**[0004]** A first kind of displayer is that one providing different horizontal elements with a triangular cross-section, that can rotate about their horizontal axis, in such a way that synchronously rotating the different faces, it is possible to modify the message visible to the public according a pre-established timed sequence.

**[0005]** Obviously, this kind of device is rather limitative, since the number of messages that can be viewed is limited to three, and they can be viewed according to a rigid sequence.

**[0006]** Furthermore, it is difficult to replace the messages, since it is necessary the complete substitution of the viewer device.

**[0007]** A second kind of displayer for different images already known and available on the market is that comprising a sheet wound on a roll and upon which different messages in sequence are provided.

**[0008]** In this case, if the number of messages is limited only by the length of the sheet and by the dimensions of the device, it is evident that remarkable limitations exist for the exposition sequence. In fact, the sequence is rigidly constrained to the order by which the different messages are placed on the sheet, so that they cannot be proposed according to a casual order.

**[0009]** Furthermore, it is always necessary to replace the whole sheet to replace the messages.

**[0010]** In view of the above, in the European patent N° 0 649 554, assigned to the Applicant, an innovative solution for an information displayer has been described to solve all the problems according to the prior art.

**[0011]** Particularly, the solution described and claimed allows to provide a high number of different messages according to a casual sequence and that can be singularly replaced.

**[0012]** These results are obtained, as it can be deduced from claim 1 of the granted patent, by an information displayer with interchangeable boards, comprising at least a loader of boards provided with means to take out said nth boards; means to grasp the board to be displayed; and means to bring in a display position and to bring back the same into a container, characterised in that said boards are selectively interchangeable, said loaders are releasably coupled to the displayer, so that they can be replaced with other ones containing different boards, in that said loaders have a stepping mo-

tion, with a number of steps corresponding to the number of boards provided, and in that the movement is obtained by a stepping motor controlled by a pre-programmed microprocessor.

**[0013]** Now, it is suggested according to the present invention a hooking device for windable boards to be particularly, but not exclusively, used for an information displayer of the kind described in the above mentioned patent application.

**[0014]** It is therefore specific object of the present invention a hooking device for windable boards, particularly for information displays with interchangeable boards comprising in combination a sheath having an elongated shaped, providing a longitudinal pocket and two divided longitudinal surfaces, longitudinally coupled to said pocket and superimposable at one end of the windable board, a rod-like element, having such dimensions to be introduced within said pocket and having the ends projecting from the same pocket, and a pair of flexible and elastic straps, which respectively couple at one end of the respective end of the rod-like element projecting from said pocket and at the other end with the wounding roll of the windable board.

**[0015]** Preferably, according to the invention, said sheath is made up of transparent material.

**[0016]** Still according to the invention, said sheath can be made up of plastic or paper material.

**[0017]** Always according to the invention, said divided surfaces coupable at one end of the windable board can be coupled with said board by folded seam, sewing, gluing, etc.

**[0018]** Furthermore, according to the invention, said rod-like element can be made up of metallic material.

**[0019]** Still according to the invention, said flexible and elastic straps can be made up of plastic material or any other suitable material.

**[0020]** The present invention will be now described, for illustrative but not limitative purposes, according to its preferred embodiments, with particular reference to the figures of the enclosed drawings, wherein:

figure 1 is a perspective partial view of a device according to the invention dragging a windable board; figure 2 shows a first particular of the device of figure 1; and figure 3 shows a second particular of the device of figure 1.

**[0021]** Observing the figures of the enclosed drawings, and particularly figure 1, a board 1 is shown, unwound and that in the rest position is wound about a roll 2, shown in explosion in such a way to be able to completely see the spring 3 to load the same, which is not part of the present invention.

**[0022]** Board 1 is shown during the unwinding phase, but it could also be during the wounding about the roll 2.

**[0023]** Board 1 is coupled to the dragging device 4 by a device according to the present invention providing a

sheath 5 (see particularly figure 2) realising an upper (or lower, according to the board on which it is applied) pocket 6, within which a rod 7 is introduced, the ends of which project outwardly from the pocket 6 to be coupled with the dragging device 4.

[0024] On the ends of the rigid rod 7 two flexible and elastic straps 8 are coupled, the other end of which is coupled to the roll 2.

[0025] Instead at the bottom of said sheath 5 provides two sheets 9 which are placed about the end of the board 1 by pins, gluing, or any other coupling system.

[0026] In figure 2, it can be noted that the same kind of device is in any case used with boards 1 wound from above and boards 10 wounding from the bottom.

[0027] The device suggested according to the present invention allows a fast replacement of the boards and their perfect wounding and unwinding to show them.

[0028] In fact, at the beginning it is possible to couple the two sheets on the end of the board.

[0029] Straps 8 are already coupled to the roll 2. Then the rod 7 is introduced within the pocket 6 and thus the two ends of the same rod are coupled with the same seats realised on the flexible straps 8.

[0030] Now, the preloading of the roll 2 by the spring 3 allows the wounding of the board 1 or 10 about the respective roll, and the motion mechanism allows their unwinding, by the interaction between the sheath 5 - rod 7 - straps 8 assembly and the dragging device 4.

[0031] The present invention has been described for illustrative but not limitative purposes, according to its preferred embodiments, but it is to be understood that modifications and/or changes can be introduced by those skilled in the art without departing from the relevant scope as defined in the enclosed claims.

## Claims

1. Hooking device for windable information sheets (1), particularly for information displays with interchangeable information sheets (1), **characterised in that** it comprises in combination a sheath (5) comprising an elongated longitudinal pocket (6) and two divided longitudinal sheets (9) longitudinally coupled to said pocket (6) and placed about one end of the windable information sheet (1), a rod-like element (7), having such dimensions to be introduced within said pocket and having the ends projecting from the same pocket, and a pair of flexible and elastic straps (8), which are respectively coupled at one end to each end of the rod-like element (6) projecting from said pocket, and at the other end to the winding roll (2) of the windable information sheet (1).
2. Hooking device according to claim 1, **characterised in that** said sheath (5) is made up of transparent material.
3. Hooking device according to claim 1 or 2, **characterised in that** said sheath (5) is made up of plastic or paper material.
4. Hooking device according to one of the preceding claims **characterised in that** said divided surfaces couplable to one end of the windable information sheet (1) are coupled to said information sheet by folded seam, sewing, or gluing.
5. Hooking device according to one of the preceding claims **characterised in that** said rod-like element (7) is made up of metallic material.
6. Hooking device according to one of the preceding claims **characterised in that** said flexible and elastic straps are made up of plastic material or any other suitable material.

## Patentansprüche

1. Anhängungsvorrichtung für aufrollbare Informationstafeln (1), insbesondere für Informationsanzeigen mit auswechselbaren Informationstafeln, **dadurch gekennzeichnet, dass** sie in Kombination eine Umhüllung (5), die eine verlängerte längliche Tasche (6) und zwei geteilte längliche Tafeln (9) umfasst, die längsseitig mit der Tasche (6) verbunden sind und an einem Ende der aufwickelbaren Informationstafel (1) angeordnet sind, ein stabförmiges Element (7), das derartige Ausmaße aufweist, dass es in die Tasche eingeführt wird und dessen Enden über die Tasche herausstehen, und ein Paar flexible und elastische Bänder (8) umfasst, die jeweils an einem Ende mit jedem Ende des stabförmigen Elements (6), das aus der Tasche hervorsteht, und am anderen Ende mit einer Aufwickelrolle (2) der aufrollbaren Informationstafel (1) verbunden sind.
2. Anhängungsvorrichtung gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Umhüllung (5) aus transparentem Material aufgebaut ist.
3. Anhängungsvorrichtung gemäß einem der Ansprüche 1 oder 2, **dadurch gekennzeichnet, dass** die Umhüllung (5) aus Kunststoff- oder Papiermaterial aufgebaut ist.
4. Anhängungsvorrichtung gemäß einem der vorangehenden Ansprüche, **dadurch gekennzeichnet, dass** die geteilten Oberflächen, die mit dem einem Ende der aufrollbaren Informationstafel (1) verbindbar sind, mit der Informationstafel (1) durch einen gefalteten Saum, eine Naht oder eine Klebeverbindung verbunden sind.
5. Anhängungsvorrichtung gemäß einem der voran-

gehenden Ansprüche, **dadurch gekennzeichnet, dass** das stabförmige Element (7) aus einem metallischen Material aufgebaut ist.

constituées d'une matière plastique ou de tout autre matériau adapté.

6. Anhängungsvorrichtung gemäß einem der vorangehenden Ansprüche, **dadurch gekennzeichnet, dass** die flexiblen und elastischen Bänder aus Kunststoffmaterial oder einem anderen geeigneten Material aufgebaut ist.

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## Revendications

1. Dispositif d'accrochage de panneaux d'informations pouvant être enroulés (1), en particulier destiné à des dispositifs d'affichage d'informations ayant des panneaux d'informations interchangeables (1), **caractérisé en ce qu'il** comporte en combinaison une gaine (5) comportant une poche longitudinale allongée (6) et deux feuilles longitudinales séparées (9) reliées longitudinalement à ladite poche (6) et placées autour d'une extrémité du panneau d'informations pouvant être enroulé (1), un élément analogue à une tige (7) ayant des dimensions telles qu'elle peut être introduite dans ladite poche et ayant les extrémités en saillie à partir de cette même poche, et une paire de bandes souples et élastiques (8) qui sont respectivement reliées au niveau d'une première extrémité à chaque extrémité de l'élément analogue à une tige (7) faisant saillie à partir de ladite poche, et à l'autre extrémité au rouleau d'enroulement (2) du panneau d'informations pouvant être enroulé (1).
2. Dispositif d'accrochage selon la revendication 1, **caractérisé en ce que** la gaine (5) est constituée d'un matériau transparent.
3. Dispositif d'accrochage selon la revendication 1 ou 2, **caractérisé en ce que** ladite gaine (5) est constituée d'une matière plastique ou d'un papier.
4. Dispositif d'accrochage selon l'une quelconque des revendications précédentes, **caractérisé en ce que** lesdites surfaces divisées pouvant être réunies à une première extrémité du panneau d'informations pouvant être enroulé (1) sont reliées audit panneau d'informations (2) par un agrafage, une couture ou un collage.
5. Dispositif d'accrochage selon l'une quelconque des revendications précédentes, **caractérisé en ce que** ledit élément analogue à une tige (7) est constitué d'un matériau métallique.
6. Dispositif d'accrochage selon l'une quelconque des revendications précédentes, **caractérisé en ce que** lesdites bandes souples et élastiques sont

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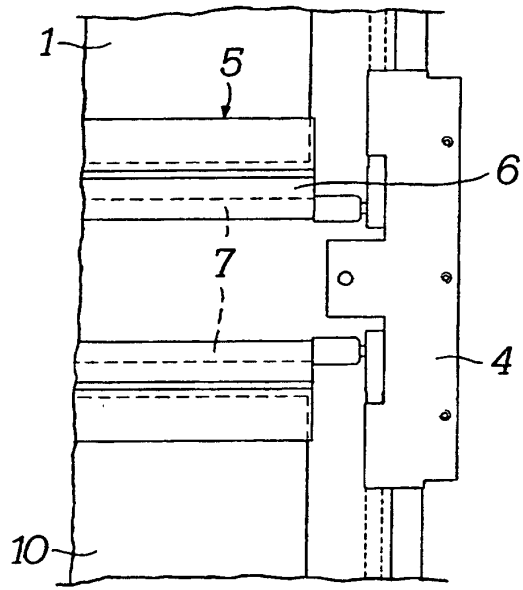


FIG. 2

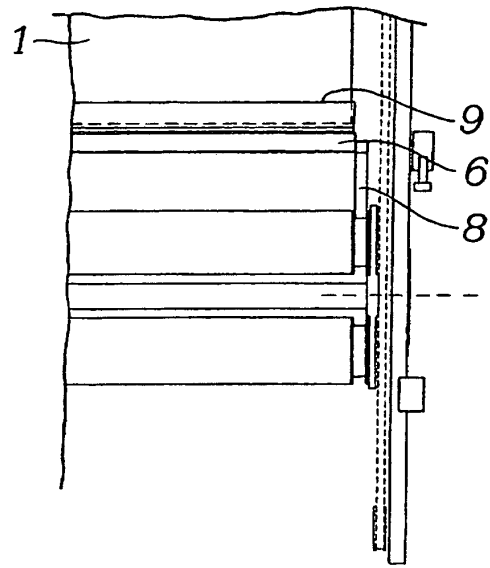


FIG. 3

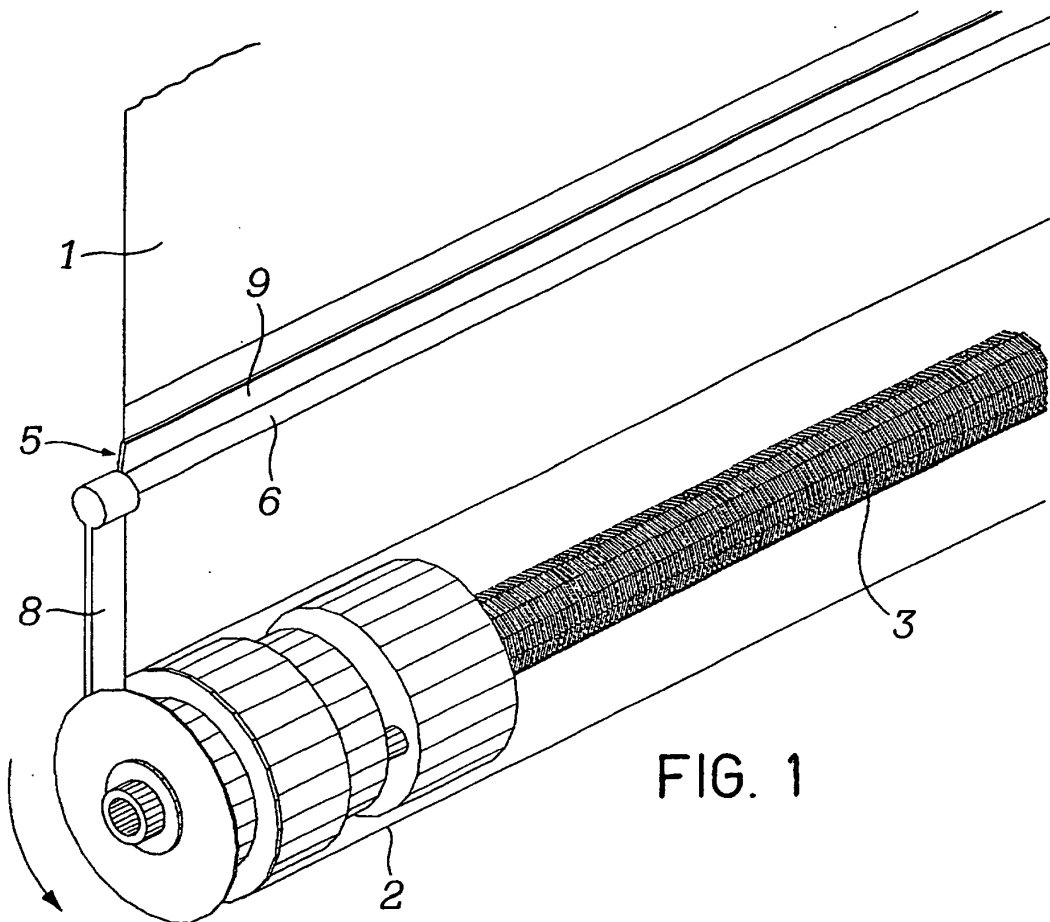


FIG. 1