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(11) **EP 1 071 065 A2**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
24.01.2001 Bulletin 2001/04

(51) Int Cl.7: **G09F 15/02**

(21) Application number: **00306253.6**

(22) Date of filing: **21.07.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: **21.07.1999 GB 9916940**

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(54) **Web support assembly**

(57) A web support assembly (10) in which a web (11) is releasably secured to a poster board (12) via a

jointing arrangement (13,17). The jointing arrangement (13,17) comprises an adhesive (16) secured to an adhesive material (17).

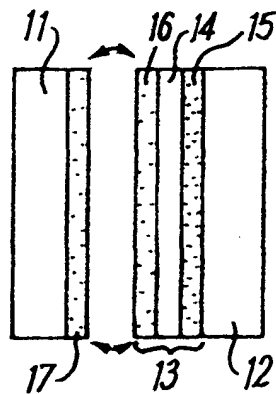


Fig. 1

EP 1 071 065 A2

Description

[0001] The present invention relates to a web support assembly. The invention has particular, but not exclusive, application in poster/poster board assemblies of the kind commonly used in retail outlets.

[0002] It is commonplace in retail outlets to display posters printed with advertising. Traditionally the posters, which comprise flexible paper webs, are attached to a rigid backing called a poster board. The poster board provides body to the poster, keeps it flat, allows it be suspended in a shop window or from a ceiling and protects the poster during use. These posters might typically be used for a two week period to support a sales campaign in the retail outlet. As and when the sales campaign is over the poster is removed from the poster board and a new advertising poster is attached to support the next campaign.

[0003] There is presently one leading system in the U.K. used for attaching a display poster to a poster board. This system uses a double-sided pressure sensitive adhesive to temporarily bond the poster to the board. A high bond strength pressure sensitive adhesive is coated on one side of a carrier tape material and a second, relatively low bonding strength, pressure sensitive adhesive is coated on the other side of the carrier. In use the high bond strength adhesive is secured to the poster board and the other lower bond strength adhesive is secured to the poster. Thus the poster may be removed from the board when the sales campaign is over in that the bond between the lower bond strength adhesive and the poster is weaker than the bond between the high bond strength adhesive and the board thus allowing the poster to be removed from the tape in preference to the tape coming away from the poster board. The main difficulty encountered with this system is achieving the right level of adhesiveness for the lower bond strength adhesive so as to hold the poster in place without destroying it upon removal. If any parts of the poster remain on the tape on removal this limits the reusability of the tape secured to the poster board and thus the board itself. Thus the boards have to be replaced quite regularly. This proves costly.

[0004] The preferred tape used in this system today utilizes a cork board as the carrier for the double sided tape. The reason for this type of carrier is that the low adhesion adhesive used must be coated onto a porous substrate or it will not be effective. This arrangement facilitates the use of adhesive systems that provide the appropriate adhesion levels, but other problems exist. The cork material tends to warp and bubbling of the poster occurs upon exposure to the heat generated by the sun in a store window. The use of the cork material makes this double sided tape very expensive and the system tends to be expensive due to limited reusability caused by exposure to the high temperatures in store windows.

[0005] The prior art has therefore failed to provide a

sufficiently reusable system that can achieve the correct level of adhesion allowing the web to be held in place for the required time whilst not causing tearing of the web when it is removed. Another problem with these known arrangements has been the effect of ageing on the adhesive which can change its bonding characteristics.

[0006] The present invention has been made from a consideration of these problems.

[0007] According to a first aspect of the present invention there is provided a web support assembly comprising a support and a flexible web having a design located thereon, the support being more rigid than the web and being reusable for subsequently supporting other webs, the web being releasably securable to the support via a jointing arrangement comprising a layer of adhesive secured to a layer of abhesive material, the jointing arrangement being such that the adhesive does not directly bond the web to the support. This allows the use of an aggressive or "permanent" adhesive system (which is generally more consistent) and the desired result is obtained by fine tuning the abhesive system.

[0008] For the purposes of the present invention by "abhesive" we mean a chemical release system that allows a bond to develop, but at the same time limits the level of this bond and in fact controls it. A synonym for abhesive would be "controlled release".

[0009] Furthermore by "releasably secured" we mean that the web may be secured to the support and subsequently removed.

[0010] Use of the abhesive coating technology with an appropriate adhesive system, preferably a pressure sensitive adhesive, provides the required adhesion levels, with uniformity of adhesion, whilst reliably providing removability without significant damage to the web.

[0011] In fact the poster actually acts as a protector for the adhesive during its attachment thereto and will therefore facilitate reuse of the poster board. Consequently the adhesion is very stable over a long period of time. A further advantage of the arrangement of the present invention is that the system facilitates repositioning of the poster on the support. Furthermore this system reduces or eliminates the problems of bubbling experienced with some prior art systems, as described hereinbefore.

[0012] The adhesive/abhesive interface preferably has a stable adhesion to release test value in the range from 50 to 400 g/25mm width, and ideally from 100 to 250 g/25mm width. This provides the ideal balance of adhesion and release characteristics.

[0013] The adhesive/abhesive interface is ideally arranged such that on division of the web from the support the said abhesive material resides with the poster material and the said adhesive material resides with the support.

[0014] The abhesive coating may be directly coated onto the web or by using an interfacing assembly such as pressure sensitive adhesive material, possibly in

tape form. When such an interfacing assembly is used the bond strength of the adhesive between the carrier for the abhesive and the web is such that the carrier/web interface has a stable adhesion to release test value in the range from 50 to 400 g/25mm width.

[0015] Similarly the adhesive, preferably a pressure sensitive adhesive, used on the support can also be either directly applied, for example on a transfer film, or via an interfacing assembly such as pressure sensitive adhesive material, possibly in tape form. When such an arrangement is used the bond strength of the adhesive between the support and the carrier for the adhesive of the adhesion/abhesive interface is such that the support/carrier interface has a stable adhesion to release test value in the range from 50 to 400 g/25mm width.

[0016] Preferred adhesives for use at the adhesive/abhesive interface comprise pressure sensitive adhesives and include any of the following either alone or in combination: an acrylic based pressure sensitive adhesive (pure or resin modified), a synthetic or natural rubber based pressure sensitive adhesive or a urethane based pressure sensitive adhesive.

[0017] Preferred adhesives for use at the interfaces other than the adhesive/abhesive interface include any of the following either alone or in combination: an acrylic pressure sensitive adhesive (pure or resin modified), a synthetic or natural rubber based pressure sensitive adhesive or a urethane based pressure sensitive adhesive.

[0018] The web would generally be made of paper. Any rigid material may be used for the support. Any interfacing assemblies may involve the use of carriers for coatings, which would generally comprise filmic or non-woven materials. The interfacing assemblies are ideally provided in tape form.

[0019] The coating of the abhesive layer is ideally such as to ensure that on contact with the adhesive no adhesive is exposed to a part of the web which is not coated with abhesive. The adhesive layer may be partial or complete.

[0020] The abhesive material is ideally selected from any of the following either alone or in combination: a silicone based release system [preferably solvent, 100% solids, heat curable (rhodium, tin, or platinum catalyzed), UV curable, E-beam curable or otherwise curable], an acrylic based release system or a fluorocarbon based release system.

[0021] In order that the present invention may be more readily understood specific embodiments thereof will now be described by way of example only with reference to the accompanying drawings in which:-

Figure 1 is a diagram of one web support assembly in accordance with the invention; and

Figure 2 is a diagram of a second web support assembly in accordance with the invention.

[0022] Referring to fig. 1 a web support assembly 10

is illustrated in which a design is printed on the front face (left hand side as illustrated) of a web of paper so as to form a poster 11. The design may be a picture and/or written script, for example in the form of an advertisement. It is desired to affix the flexible poster web 11 to a rigid poster board 12 so as to provide a satisfactory display for a retailer. The face of the board 12 onto which the poster 11 is to be affixed has applied to it a double sided pressure sensitive material 13. This material 13 comprises a carrier web 14, one side of which is coated with a first adhesive 15 of relatively high adhesion, such as an acrylic pressure sensitive adhesive, and the other side of which is coated with a second adhesive 16 of relatively high level adhesion such as an acrylic pressure sensitive adhesive. It is noted that the first and second adhesives 15, 16 may be the same. The first adhesive 15 is affixed to the aforesaid face of the poster board so as to provide a "permanent" fixing. The second adhesive 16 remains exposed.

[0023] The rear face of the poster, i.e. the face remote from the advertising is coated with a silicone or other abhesive material 17 prior to securing the poster 11 to the poster board 12 via the adhesive 16. The adhesive 16 and abhesive coating 17 are selected so as to provide sufficient adhesion to hold the poster in place for the required amount of time and to facilitate ready release of the poster from the board when required.

[0024] It is noted that the double-sided adhesive material 13 may cover the surface of the board 12 completely or may be applied to parts of the board 12 in strips or other configurations.

[0025] Fig. 2 shows an arrangement 20 similar to that illustrated in figure 1 the board 22 having adhered to it a double sided pressure sensitive material 23 having a carrier 24, and two adhesives 25 and 26. However, in this case the abhesive material 27 is not directly coated onto the rear face of the poster 21, but instead is coated onto a web 28 of material such as plastics or film, which in turn is affixed to the poster 21 via an adhesive 29 of similar strength to the strong adhesive 25 which fixes the carrier 24 to the poster board 22.

[0026] It is to be understood that the above described embodiments are by way of illustration only. Many modifications and variations are possible.

Claims

1. A web support assembly comprising a support and a flexible web having a design located thereon, the support being more rigid than the web and being reusable for subsequently supporting other webs, the web being releasably securable to the support via a jointing arrangement comprising a layer of adhesive secured to a layer of abhesive material, the jointing arrangement being such that the adhesive does not directly bond the web to the support.

2. A web support assembly as claimed in claim 1, characterised in that the adhesive is a pressure sensitive adhesive.

3. A web support assembly as claimed in claim 1 or claim 2, characterised in that the adhesive comprises any of the following either alone or in combination: an acrylic pressure sensitive adhesive, a rubber based pressure sensitive adhesive or a urethane based pressure sensitive adhesive. 5
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4. A web support assembly as claimed in any of claims 1, 2 or claim 3, characterised in that the adhesive material is selected from any of the following either alone or in combination: a silicone based release system, an acrylic based release system or a fluorocarbon based release system. 15

5. A web support assembly as claimed in any preceding claim, characterised in that the said design is located on the obverse face of the web to the face of the web which is secured to the support. 20

6. A web support assembly as claimed in any preceding claim, characterised in that said web and said support comprise planar members which can be superposed one on the other in a parallel face to face relationship, with said jointing arrangement extending over at least a substantial portion of said planar members. 25
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7. A web support assembly as claimed in any preceding claim, characterised in that said jointing arrangement comprises a double sided pressure sensitive material comprising a carrier material having a coating on one side thereof with an adhesive for adhesion to said support and also having a coating on the obverse side thereof of an adhesive for adhesion to the adhesive material. 35
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8. A web support assembly as claimed in any preceding claim, characterised in that said adhesive material is provided on one face of a carrier, the obverse face of the carrier having an adhesive coating thereon for securing the carrier to said web. 45

9. A web support assembly as claimed in any of claims 1 to 7, characterised in that one face of the web, or one face of a carrier secured to the web, is substantially uniformly coated with said adhesive material. 50

10. A web support assembly as claimed in any preceding claim, characterised in that the web is a poster and the support is a poster board. 55

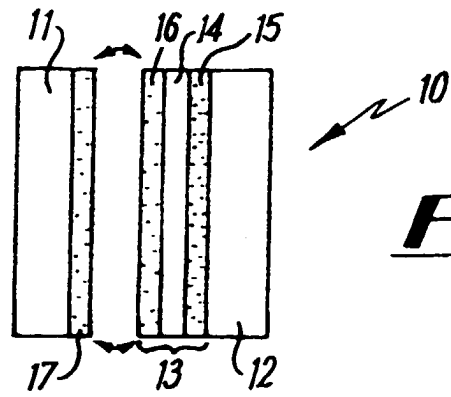


FIG. 1

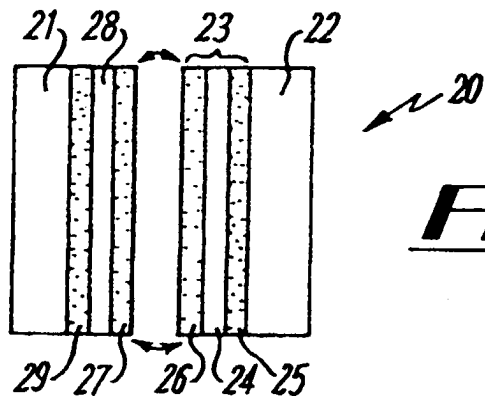


FIG. 2