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(54) **CONNECTION SYSTEM FOR A CLOTH OR THE LIKE, METHOD FOR CONNECTING A CLOTH OR THE LIKE TO AN ELEMENT AND NEW USE OF HALF A ZIPPER PROVIDED ON THE SIDE EDGE OF A CLOTH OR THE LIKE**

VERBINDUNGSSYSTEM FÜR EIN TUCH ODER DERGLEICHEN, VERFAHREN ZUM VERBINDEN EINES TUCHES ODER DERGLEICHEN MIT EINEM ELEMENT UND NEUE VERWENDUNG EINES HALBEN REISSVERSCHLUSSES AUF DER SEITENKANTE EINES TUCHES ODER DERGLEICHEN

SYSTÈME DE RACCORDEMENT POUR UNE ÉTOFFE OU SIMILAIRE, PROCÉDÉ DE RACCORDEMENT D'UNE ÉTOFFE OU SIMILAIRE À UN ÉLÉMENT ET NOUVELLE UTILISATION D'UNE MOITIÉ DE FERMETURE À GLISSIÈRE SITUÉE SUR LE BORD LATÉRAL D'UNE ÉTOFFE OU SIMILAIRE

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(56) References cited:
BE-A1- 905 440
GB-A- 1 005 756
US-A- 5 117 892

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Description

[0001] The present invention concerns a connection system for a cloth or the like, such as for example for a cloth for roller blinds, a facade cloth or facade sail cloth, a film, either or not printed, and the like.

[0002] A cloth or the like should be interpreted in the broadest sense, including sailcloth, fleeces, fabrics, foils, films or combinations thereof, for indoor and outdoor use, regardless of the way in which they are made and regardless of the materials from which they are made.

[0003] A cloth should often be connected to an element such as a profile or a frame or the like.

[0004] In the application of roller blinds, for example, it is known for the cloth, for example a rectangular piece of cloth, to be connected to a roller tube on one side edge, while the opposite side edge is provided with a profile or the like which gives the necessary weight to the cloth to ensure a smooth appearance when the roller blind is unrolled.

[0005] At present, the profile is commonly connected to the curtain cloth by providing a border on the side edge concerned of the cloth over the full width in the form of a hem, in which a so-called string is passed.

[0006] In combination therewith, a profile is used which has a channel-spaced room in which the hem with the introduced string can be inserted, for example by sliding it in along an open crosscut end.

[0007] A restriction or disadvantage of this solution is that the connecting line, often a seal, of the hem remains visible, also after the string has been provided in the profile.

[0008] Such a seal or connecting line is also created for that matter with other connections to a cloth or the like.

[0009] In any other application where a cloth is to be stretched in a frame or the like, connection systems are required as well. Such an application is known among others in wall claddings or large cloths with printed advertisements.

[0010] The cloth is usually connected to the frame by providing the cloth with rivets or reinforcement rings along the circumferential edge.

[0011] Cords or elastics are guided through these rivets, which are additionally connected to a fixed structure.

[0012] Such a fixed structure consists for example of a tubular framework which is connected to a facade or a scaffolding.

[0013] A disadvantage of such a connection for cloths or the like is that the cloth is attached at discrete points and possibly tightened, as a result of which deformations occur in the cloth surface.

[0014] Moreover, the tension is relatively limited since the discrete points should absorb all forces.

[0015] Also when applying artistic works on canvas or the like in a frame, there is a need for connection systems.

[0016] In order to illustrate the state of the art, reference is also made to a known guiding system for flat-hanging sun blind fabrics, wherein the cloth is provided with half a zipper on two opposite side edges. Such a sun shading system is often referred to as a 'zip screen'.

[0017] The embodiment with half a zipper, as described in patent BE 905.440, prevents a sun blind fabric from rattling during heavy wind gusts. In general terms, the half-zipper contains discrete blocks positioned at a regular mutual distance.

[0018] The half-zipper is usually connected to the cloth by means of a seal.

[0019] As illustrated in patent BE 905.440, the half-zipper is provided in an inner space in a first section which is delimited by a first jacket in which, over the entire length of the first section, is provided a first slot. Thus, the zipper can be led in the inner space along one of the crosscut ends of said first section, whereby the cloth extends through the first slot.

[0020] The zipper blocks have a larger width than the width of the first slot, whereas the inner space in the first section provides enough space, such that the zipper can be moved up and down through the section without too much resistance.

[0021] This first section is in turn spring-mounted towards the outside in a second section which is solidly fixed to the building, in such a way that the two opposite sections are at all times pushed away from each other.

[0022] This second section comprises a channel-shaped chamber delimited by a second jacket provided with a second slot, in this case a wide one, through which the cloth is guided.

[0023] The first section is provided in the second section with both slots close to each other, i.e. such that the cloth between the opposite half-zippers forms a plane in view of a smooth up-and-down guiding.

[0024] The resilience is limited or even absent, however, when the cloth remains unloaded, for example in still air, such that the cloth can thereby be rolled on and off without too much resistance.

[0025] This guiding system for sun blind fabrics is not sufficient however to be used as a clamping system for a cloth or the like without any modifications.

[0026] Moreover, it is clear that the discrete blocks of the zipper are preferably as small as possible in view of a limited thickening when rolling up the cloth, while the slot should be considerably wider than the thickness of the cloth on the one hand, and should be narrower than the width of the blocks on the other hand in order to prevent a too rapid exit.

[0027] This balancing exercise results in an assembly which is able to resist forces which occur in case of conventional wind strengths on roller blind surfaces which are not too big.

[0028] When the roller blind surface increases, or when another application is aimed, such as for example cladding a façade with textile, the forces will increase quadratically with the length.

[0029] An additional disadvantage is that the connecting line or seal may be visible.

[0030] The present invention provides an alternative

for the known connection systems or aims to remedy the above-mentioned and other disadvantages by providing a connection system for a cloth or the like.

[0031] To this end, the invention concerns a connection system for a cloth or the like, which connection system can cooperate with a cloth, of which at least a part of an edge is provided with what is called a half-zipper, whereby the connection system comprises at least a first section provided with a first jacket defining a first inner space, but which first jacket is provided with a first slot over substantially the full length of the first section, whereby the first inner space is carried out suitably, such that the half-zipper can be introduced in it while the cloth or the like can extend through the first slot, and which first section can cooperate with a channel-shaped chamber provided in an element with which the cloth is intended to be connected, such as for example a second section or the like, which channel-shaped chamber is delimited by a second jacket defining a second inner space, but which second jacket is provided with a second slot over substantially the full length of the channel-shaped chamber, whereby the geometry and dimensions of the first section are adapted such to the geometry and dimensions of the channel-shaped chamber that the first section with the introduced half-zipper and extending cloth or the like can be provided in the channel-shaped chamber, whereby more specifically the first slot is placed in or near the most hidden part of the channel-shaped chamber, i.e. in the zone of the channel-shaped chamber which is the furthest away from the second slot, whereas the cloth or the like can extend through the second slot, and in such a way that when a tensile force is exerted on the cloth or the like, the first section will be partly tilted if need be, but whereby a complete reversal of the first section in the channel-shaped chamber, i.e. such that the first slot ends up in line with or in the vicinity of the second slot, is prevented.

[0032] According to a special embodiment variant, the channel-shaped chamber and/or the half-zipper is/are part of the connection system according to the invention.

[0033] In technical terms, the technical result is obtained among others when the largest diameter of the cross section of the first section, i.e. the largest distance that can possibly be measured between two points situated on the outside of the first section, is not smaller than the diameter of the largest virtual circle that can be drawn in cross-section in the channel-shaped chamber.

[0034] All this results in a connection system wherein the seal or the like between the half-zipper and the cloth remains at all times hidden in the channel-shaped chamber and whereby an exit of the first section from the channel-shaped chamber is prevented, also when the width of the second slot of the channel-shaped chamber is larger than the smallest width of the first section.

[0035] Indeed, according to a preferred embodiment variant, the geometry and dimensions of the first section are adjusted in such a way to the geometry and dimensions of the channel-shaped chamber that, when exerting a tensile force on the cloth or the like, the first section is partly tilted, in any case over less than 180°, preferably over less than 90° or even over less than 70°, whereby the tilting results in the first section being blocked in the channel-shaped chamber.

[0036] When seen in cross-section, the shape of the channel-shaped chamber may for example be mainly oval without any substantial slot depth.

[0037] A first section according to the invention which can cooperate with such a channel-shaped chamber which is oval-shaped when seen in cross-section can be either oval or substantially rectangular, of course roughly smaller than the channel-shaped chamber, and with the largest diameter of the first section, for example the distance between the first slot and the opposite wall part on the outside of the first section, being larger than the provided width in the channel-shaped chamber.

[0038] The shape of the channel-shaped chamber in cross-section can for example comprise a circular portion, complemented with for example a rectangular slot as seen in cross-section having a slot depth amounting to for example one third of the total depth of the channel-shaped chamber. For the sake of simplicity, this basic form is referred to as a tree-shaped cross-section.

[0039] A first section according to the invention which can cooperate with such a channel-shaped chamber which is tree-shaped when seen in cross-section may also comprise a predominantly circular portion with an interruption so as to form the first slot, and opposite the first slot it may be provided with a protruding fin on the outside which, when attached, takes up a place in the second slot of the channel-shaped chamber.

[0040] The present invention also concerns a method for connecting a cloth or the like to an element, which method, starting from a cloth with a half-zipper connected thereto on the one hand, and an element with which the cloth is to be connected, which element is provided with a channel-shaped chamber which is delimited by a second jacket defining a second inner space, but which second jacket is provided with a second slot over substantially the full length of the channel-shaped chamber on the other hand, consists of the steps of providing a first section with a first jacket defining a first inner space, but which first jacket is provided with a first slot over substantially the full length of the first section, whereby the half-zipper is inserted in the first inner space while the cloth or the like extends through the first slot, after which the first section is provided in the channel-shaped chamber, in particular with the first slot in or near the most hidden part of the channel-shaped chamber, i.e. in the zone of the channel-shaped chamber away from the second slot, while the cloth or the like passes through the second slot.

[0041] The present invention also concerns the new use of a half-zipper provided on the side edge of a cloth or the like, which use concerns the realisation of a connection without the half-zipper having to be led in the first section.

[0042] In order to better explain the characteristics of the invention, the following preferred embodiments of a connection system for a cloth or the like according to the invention are described by way of example only without being limitative in any way, with reference to the accompanying drawings, in which:

figures 1 to 3 are cross-sections of three alternative embodiments of a connection system according to the invention.

[0043] Figure 1 schematically represents a cross-section of a connection system according to the invention, with a first section 1 in which the half-zipper 2 which is connected to the edge of a cloth 3 has been introduced.

[0044] The whole is appropriately provided in a channel-shaped chamber 4 in element 5.

[0045] The element 5 in this case concerns a schematically represented section 5.

[0046] In general terms, the half-zipper 2 comprises discrete blocks positioned at a regular mutual distance.

[0047] The half-zipper 2 is connected to the cloth 3 by means of a weld or seal 6.

[0048] The first section 1 is provided with a first jacket 7 which has an essentially round or circular design here and which defines a first inner space 8, but which first jacket 7 is provided with a first slot 9 over substantially the full length of the first section 1.

[0049] The first inner space 8 is made such that the half-zipper 2 can be introduced in it while the cloth or the like 3 can extend through the first slot 9.

[0050] The first jacket 7 is provided with a protruding fin 10 on the outside, in this case in particular opposite the slot 9, which fin 10 is part of the first section 1.

[0051] The half-zipper 2 can be applied for example via one of the crosscut ends of the first section 1, while the first slot 9 has a width which is smaller than the width of the discrete blocks of the half-zipper 2 in order to prevent a too rapid exit.

[0052] The channel-shaped chamber 4 in the element 5 is delimited by a second jacket 11 which defines a second inner space 12, but which second jacket 11 is provided with a second slot 13 over substantially the full length of the channel-shaped chamber 4.

[0053] As seen in this cross-section, the shape of the channel-shaped chamber 4 has a round compartment 14 and a chamber 15 which is rectangular when seen as a cross-section, i.e. the slot 13 which has a considerable slot depth here, namely between one third and half of the total depth of the channel-shaped chamber 4. For the sake of simplicity, this basic shape is referred to as a tree-shaped cross-section.

[0054] The width of the second slot 13 is in this case, but not necessarily, smaller than the smallest diameter of the first section 1.

[0055] The geometry and dimensions of the first section 1 are adjusted such to the geometry and dimensions of the channel-shaped chamber 4 that the first section 1 with introduced half-zipper 2 and extending cloth or the like 3 can be provided in the channel-shaped chamber 4, in this case given the smaller slot width as compared to the smallest diameter of the first section 1, via one of the crosscut ends of the channel-shaped chamber 4.

[0056] According to the invention, the first section 1, while being introduced or placed in the channel-shaped chamber 4, is placed with the first slot 9 in or near or at least predominantly in the direction of the most hidden part of the channel-shaped chamber 4.

[0057] By the most hidden part of the channel-shaped chamber 4 is meant the zone of the channel-shaped chamber 4 situated away from the second slot 13.

[0058] All this implies that, while the first section 1 with the introduced half-zipper 2 with which the cloth 3 is connected is being introduced or provided, the cloth 3 is guided between the second jacket 11 and the first section 1 to leave the element 5 further via the second slot 2.

[0059] The geometry and dimensions of the first section 1 are additionally adjusted such to the geometry and dimensions of the channel-shaped chamber 4 that the first section 1, once it has been introduced as mentioned above, is not offered the space required to rotate such that the first slot 9 would be directed to the second slot 13.

[0060] In other words, the geometry and dimensions of the first section 1 are adjusted such to the geometry and dimensions of the channel-shaped chamber 4 that, when exerting a tensile force on the cloth or the like 3, the first section 1 is partly tilted if need be, but whereby a complete reversal of the first section 1 in the channel-shaped chamber 4, i.e. such that the first slot 9 ends up in line with or in the vicinity of the second slot 13, is prevented.

[0061] All this is obtained among others when the largest diameter D of the cross section of the first section 1, i.e. the largest distance that can possibly be measured between two points situated on the outside of the first section 1, is not smaller than the diameter of the largest virtual circle that can be drawn in cross-section in the channel-shaped chamber 4.

[0062] The bottom line in the embodiment as discussed above and as represented in figure 1 is that the distance between the free end of the fin 10 and the opposite outside of the first jacket 7, i.e. near the first slot 9, is larger than the diameter of the round compartment 14 of the channel-shaped chamber 4.

[0063] The method for connecting the cloth or the like 3 to an element 5 according to the invention, and the operation of the connecting system according to the invention is as follows.

[0064] Starting from a cloth or the like 3 on which is provided a half-zipper 2 in the known manner, and also from the other above-described components, i.e. the first section 1 and the element 5 with which the cloth or the like 3 is to be connected, the proceeding is as follows.

[0065] The half-zipper 2 is introduced in the first section 1 via one of the open crosscut ends of the first section 1.

[0066] The cloth 3 emerges from the first slot 9, and

the first section 1 is substantially rotated 180° around its axis while the cloth 3 is being held in position. Thus, the cloth 3 is guided along the outer wall of the first jacket 7 and along the fin 10, to proceed further from there on in the extension of the fin 10.

[0067] In this position, the first section 1 is introduced in the channel-shaped chamber 4, in the present embodiment along one of the crosscut ends of the channel-shaped chamber 4.

[0068] The cloth 3 thereby goes through the second slot 13; the fin 10 and the leaning part of the cloth 3 partly take up a place in the chamber 15 which is rectangular from a cross-sectional view, i.e. the slot 13 which has a considerable slot depth in this case, and the first jacket 7 which has an essentially round or circular design here, together with the leaning part of the cloth 3 and the zipper 2 which has been inserted in the section 1 are introduced in the round compartment 14 of the channel-shaped chamber 4.

[0069] When exerting a tensile force on the cloth or the like 3, for example by suspending the cloth 3, whereby the section 5 forms a weight at the bottom, the first section 1 will be tilted until the fin 10 leans against one of the walls which delimit the chamber 15 which is rectangular seen in cross-section.

[0070] Any further tilting is thus prevented, as a result of which the hidden arrangement of the first slot 9, and especially of the seal 6 remains guaranteed.

[0071] This arrangement guarantees in particular, given the tangential orientation of the tensile strength near the first slot 9, a greater resistance to tensile forces than if the first slot 9 were positioned in line with the second slot 13.

[0072] The variant embodiment from figure 2 differs from the embodiment in figure 1 in that the shape of the channel-shaped chamber 4 is substantially oval, without any significant slot depth.

[0073] The represented first section 1 which can cooperate with such a channel-shaped chamber 4 with an oval cross-section may be predominantly rectangular or oval, as represented.

[0074] The shape of the first section 1 as represented in figure 1 can also be combined with the oval channel-shaped chamber 4 as represented in figure 2.

[0075] Figure 3 shows a practical embodiment variant of a connection system according to the invention. In order to maintain an overview, only the part of an element 5 which is provided with the channel-shaped chamber 4 is represented here.

[0076] Also this channel-shaped chamber 4 is provided with a first section 1 here.

[0077] The first section 1 is provided with a first jacket 7 which defines a first inner space 8.

[0078] Note that the first jacket 7 is provided with a first slot 9, in this case over the full length of the first section 1.

[0079] In the first inner space 8 is provided a half-zipper 2 which is connected to the cloth or the like 3, in particular in a known manner by means of a seal.

[0080] To that end, the first inner space 8 offers sufficient space to apply the zipper 2, for example via one of the crosscut ends of the first section 1, whereas the first slot 9 has a width which is smaller than the width of the discrete blocks of the zipper 2 so as to prevent a too rapid exit.

[0081] According to a characteristic of the present invention, the dimensions as well as the geometry of the first section 1 are appropriately adjusted to the dimensions and geometry of the channel-shaped chamber 4 in which it is provided in a position of use.

[0082] The first section 1 has indeed a predominantly rectangular shape, but in this case with rounded angles.

[0083] The channel-shaped chamber 4 is substantially surrounded by a second jacket 11 in which is provided a second slot 13.

[0084] The second slot 13 has a width which is larger than the width or the smallest diameter of the first section 1.

[0085] The second slot 13 is delimited by two substantially parallel flanks 16.

[0086] Both flanks 16 partly define the second inner space 12 of the channel-shaped chamber 4. The slot 13 provides access to a deeper compartment 17 of the inner space 12.

[0087] One of the flanks 16 is provided with a nose 18 which provides a part of the deeper compartment 17 with an angle 19 hidden from the outside of the inner space 12.

[0088] The geometry of the deeper compartment 17 is such that the first section 1 can be tilted therein, whereby it gets blocked in the hidden angle 19, i.e. behind the nose 18, on the one hand, and against the opposite part of the second jacket 11 in the second inner space 12 on the other hand.

[0089] The required space is also offered here among others by a semicircular recess 20 in the most recessed portion of the inner space 12.

[0090] The first section 1 is provided in the channel-shaped chamber 4 in such a way here that the first slot 9 is maximally removed from the second slot 13 in the second jacket 11 of the channel-shaped chamber 4.

[0091] The cloth or the like 3 thereby passes from the first slot 9, between the first section 1 and the nose 18, and further out of the inner space 12.

[0092] The operation of the preferred connection system for a cloth or the like according to figure 3 differs from the operation of the embodiments discussed above and represented in figures 1 and 2 in that the second slot 13 is wider due to the presence of the nose 18.

[0093] A cloth or the like 3 whose edge is provided with a half-zipper 2, which is provided in the first section 1 in the manner discussed above, is taken as a basis.

[0094] The first section 1 with the introduced zipper 2 is provided as a whole in a single movement through the second slot 13 in the channel-shaped chamber 4 by presenting it over its full length and by possibly applying some pressure force, whereby the first slot 9 is first introduced in the channel-shaped chambers 4.

[0095] The cloth or the like 2 is thereby introduced between the first section 1 and the nose 18.

[0096] By subsequently exerting some tensile strength on the cloth or the like 3, for example when the element 5 is part of a clamping system, but preferably in a direction mainly parallel to the flank 16 along which the cloth 3 is introduced, the first section 1 is tilted, whereby it will be finally locked in the hidden angle 19, i.e. behind the nose 18 on the one hand, and against the opposite part of the second jacket 11 in the second inner space 12 on the other hand.

[0097] The required space is also offered here among others by a semicircular recess 20 in the most recessed portion of the inner space 12.

[0098] The present invention is by no means limited to the embodiments described by way of example and represented in the accompanying drawings; on the contrary, a connection system for a cloth or the like 3 according to the invention can be made in all sorts of shapes and dimensions while still remaining within the scope of the invention, as defined in the appended claims.

Claims

1. Connection system for a cloth or the like, which connection system can cooperate with a cloth or the like (3) of which at least a part of an edge is provided with what is called a half-zipper (2), whereby the connection system comprises at least a first section (1) provided with a first jacket (7) defining a first inner space (8), but which first jacket (7) is provided with a first slot (9) over substantially the full length of the first section (1), whereby the first inner space (8) is carried out suitably, such that the half-zipper (2) can be introduced in it while the cloth or the like (3) can extend through the first slot (9), and which first section (1) can cooperate with a channel-shaped chamber (4) provided in an element (5) with which the cloth (3) is intended to be connected, such as for example a second section or the like, which channel-shaped chamber (4) is delimited by a second jacket (11) defining a second inner space (12), but which second jacket (11) is provided with a second slot (13) over substantially the full length of the channel-shaped chamber (4), whereby the geometry and dimensions of the first section (1) are adapted such to the geometry and dimensions of the channel-shaped chamber (4) that the first section (1) with the introduced half-zipper (2) and extending cloth or the like (3) can be provided in the channel-shaped chamber (4), whereby more specifically the first slot (9) is placed in or near the most hidden part of the channel-shaped chamber (4), i.e. in the zone of the channel-shaped chamber (4) which is the furthest away from the second slot (13), whereas the cloth or the like (3) can extend through the second slot (13), and in such a way that when a tensile force is exerted on the cloth or the like (3), the first section (1) will be partly tilted if need be, but whereby a complete reversal of the first section (1) in the channel-shaped chamber (4), i.e. such that the first slot (9) ends up in line with or in the vicinity of the second slot (13), is prevented.

2. Connection system according to claim 1, **characterised in that** the channel-shaped chamber (4) and/or the half-zipper (2) are part of the connection system.

3. Connection system according to claim 1 or 2, **characterised in that** the largest diameter measured in the cross section of the first section (1), i.e. the largest distance that can possibly be measured between two points situated on the outside of the first section (1), is not smaller than the diameter of the largest virtual circle that can be drawn in cross-section in the channel-shaped chamber (4).

4. Method for connecting a cloth or the like (3) to an element (5), which method, starting from a cloth or the like (3) with a half-zipper (2) connected thereto on the one hand, and an element (5) with which the cloth (3) is to be connected, which element (5) is provided with a channel-shaped chamber (4) which is delimited by a second jacket (11) defining a second inner space (12), but which second jacket (11) is provided with a second slot (13) over substantially the full length of the channel-shaped chamber (13) on the other hand, consists of the steps of providing a first section (1) with a first jacket (7) defining a first inner space (8), but which first jacket (7) is provided with a first slot (9) over substantially the full length of the first section (1), whereby the half-zipper (2) is inserted in the first inner space (8) while the cloth or the like (3) extends through the first slot (9), after which the first section (1) is provided in the channel-shaped chamber (4), in particular with the first slot (9) in or near the most hidden part of the channel-shaped chamber (4), i.e. in the zone of the channel-shaped chamber (4) away from the second slot (13), while the cloth or the like passes through the second slot (13).

Patentansprüche

1. Verbindungssystem für einen Stoff oder dergleichen, welches Verbindungssystem mit einem Stoff oder dergleichen (3) zusammenarbeiten kann, von dem mindestens ein Teil einer Kante mit einem sogenannten Halbreißverschluss (2) versehen ist, wobei das Verbindungssystem mindestens einen ersten Abschnitt (1) versehen ist, der mit einer ersten Hülle (7) versehen ist, die einen ersten Innenraum (8) definiert, aber welche erste Hülle (7) mit einem ersten Schlitz (9) über im Wesentlichen die ganze Länge des ersten Abschnitts (1) versehen ist, wobei

der erste Innenraum (8) entsprechend ausgeführt ist, sodass der Halbreißverschluss (2) in diesen eingeführt werden kann, während der Stoff oder dergleichen (3) durch den ersten Schlitz (9) verlaufen kann, und welcher erste Abschnitt (1) mit einer kanalförmigen Kammer (4) zusammenarbeiten kann, bereitgestellt in einem Element (5), mit dem der Stoff (3) verbunden werden soll, wie beispielsweise einem zweiten Abschnitt oder dergleichen, welche kanalförmige Kammer (4) von einer zweiten Hülle (11), die einen zweiten Innenraum (12) definiert, begrenzt wird, aber welche zweite Hülle (11) mit einem zweiten Schlitz (13) über im Wesentlichen die ganze Länge der kanalförmigen Kammer (4) versehen ist, wobei die Geometrie und die Abmessungen des ersten Abschnitts (1) so an die Geometrie und die Abmessungen der kanalförmigen Kammer (4) angepasst sind, dass der erste Abschnitt (1) mit dem eingeführten Halbreißverschluss (2) und verlängertem Stoff oder dergleichen (3) in der kanalförmigen Kammer (4) bereitgestellt werden kann, wobei insbesondere der erste Schlitz (9) in oder nahe dem am meisten verdeckten Teil der kanalförmigen Kammer (4) platziert ist, d. h., in der Zone der kanalförmigen Kammer (4), die am weitesten von dem zweiten Schlitz (13) entfernt ist, wobei der Stoff oder dergleichen (3) durch den zweiten Schlitz (13) und derart verlaufen kann, dass, wenn eine Zugkraft auf den Stoff oder dergleichen (3) ausgeübt wird, der erste Abschnitt (1) gegebenenfalls teilweise geneigt wird, aber wobei eine komplette Umkehr des ersten Abschnitts (1) in der kanalförmigen Kammer (4), also so, dass der erste Schlitz (9) ausgerichtet zu oder in der Nähe von dem zweiten Schlitz (13) endet, verhindert wird.

2. Verbindungssystem nach Anspruch 1, **dadurch gekennzeichnet, dass** die kanalförmige Kammer (4) und/oder der Halbreißverschluss Teil des Verbindungssystems sind.

3. Verbindungssystem nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** der größte Durchmesser, gemessen im Querschnitt des ersten Abschnitts (1), d. h., der größte Abstand, der womöglich zwischen zwei Punkten, gelegen an der Außenseite des ersten Abschnitts (1), gemessen werden kann, nicht kleiner als der Durchmesser des größten virtuellen Kreises ist, der im Querschnitt in der kanalförmigen Kammer (4) gezogen werden kann.

4. Verfahren zum Verbinden eines Stoffs oder dergleichen (3) mit einem Element (5), welches Verfahren, ausgehend von einem Stoff oder dergleichen (3) mit einem damit verbundenen Halbreißverschluss (2) einerseits und einem Element (5), mit dem der Stoff (3) verbunden werden soll, welches Element mit einer kanalförmigen Kammer (4) versehen ist, die von einer zweiten Hülle (11), de einen zweiten Innenraum (12) definiert, aber welche zweite Hülle (11) mit einem zweiten Schlitz (13) über im Wesentlichen die ganze Länge der kanalförmigen Kammer (13) andererseits versehen ist, aus den Schritten besteht, in denen ein erster Abschnitt (1) mit einer ersten Hülle (7), die einen ersten Innenraum (8) definiert, aber welche erste Hülle (7) mit einem ersten Schlitz (9) über im Wesentlichen die ganze Länge des ersten Abschnitts (1) verläuft, bereitgestellt wird, wobei der Halbreißverschluss (2) in den ersten Innenraum (8) eingeführt wird, während der Stoff oder dergleichen (3) durch den ersten Schlitz (9) verläuft, woraufhin der erste Abschnitt (1) in der kanalförmigen Kammer (4) bereitgestellt wird, insbesondere mit dem ersten Schlitz (9) in oder in der Nähe von dem am meisten verdeckten Teil der kanalförmigen Kammer (4), d. h., in der Zone der kanalförmigen Kammer (4) weg von dem zweiten Schlitz (13), während der Stoff oder dergleichen durch den zweiten Schlitz (13) geht.

Revendications

1. Système de raccordement pour une étoffe ou analogue, ledit système de raccordement peut coopérer avec une étoffe ou analogue (3) dont au moins une partie d'un bord est pourvue de ce que l'on appelle une moitié de fermeture à glissière (2), dans lequel le système de raccordement comprend au moins une première section (1) pourvue d'une première gaine (7) définissant un premier espace intérieur (8), mais ladite première gaine (7) est pourvue d'une première fente (9) sur substantiellement la longueur totale de la première section (1), par laquelle le premier espace intérieur (8) est réalisé de manière adéquate, de sorte que la moitié de fermeture à glissière (2) peut être introduite dans celui-ci tandis que l'étoffe ou analogue (3) peut s'étendre à travers la première fente (9), et ladite première section (1) peut coopérer avec une chambre en forme de canal (4) prévue dans un élément (5) avec laquelle l'étoffe (3) est censée se raccorder, comme, par exemple, une seconde section ou analogue, ladite chambre en forme de canal (4) étant délimitée par une seconde gaine (11) définissant une second espace intérieur (12), mais ladite seconde gaine (11) étant pourvue d'une seconde fente (13) sur substantiellement la longueur totale de la chambre en forme de canal (4), la géométrie et les dimensions de la première section (1) étant adaptées de telle sorte à la géométrie et aux dimensions de la chambre en forme de canal (4) que la première section (1) avec la moitié de fermeture à glissière introduite (2) et l'étoffe étendue ou analogue (3) peuvent être fournies dans la chambre en forme de canal (4), plus spécifiquement la première fente (9) étant placée dans ou près de la partie la plus cachée de la chambre en forme de canal (4), c.-à-d. dans la zone de la chambre en forme de canal

(4) qui est la plus éloignée de la seconde fente (13), tandis que l'étoffe ou analogue (3) peut s'étendre à travers la seconde fente (13), et d'une telle manière que lorsqu'une force de traction est exercée sur l'étoffe ou analogue (3), la première section (1) sera en partie inclinée au besoin, mais en vertu de quoi un retournement complet de la première section (1) dans la chambre en forme de canal (4), c.-à-d. de telle sorte que la première fente (9) se retrouve dans le prolongement ou à proximité de la seconde fente (13), est empêché.

2. Le système de raccordement selon la revendication 1, **caractérisé en ce que** la chambre en forme de canal (4) et/ou la moitié de fermeture à glissière (2) font partie du système de raccordement.

3. Le système de raccordement selon la revendication 1 ou 2, **caractérisé en ce que** le plus grand diamètre mesuré dans la section transversale de la première section (1), c.-à-d. la plus grande distance qu'il est possible de mesurer entre deux points situés sur l'extérieur de la première section (1), n'est pas inférieure au diamètre du plus grand cercle virtuel qui peut être tracé en section transversale dans la chambre en forme de canal (4).

4. Méthode pour le raccordement d'une étoffe ou analogue (3) à un élément (5), laquelle méthode, commençant à partir d'une étoffe ou analogue (3) avec une moitié de fermeture à glissière (2) raccordée à celle-ci, d'une part, et un élément (5) avec lequel l'étoffe (3) doit être raccordée, lequel élément (5) est pourvu d'une chambre en forme de canal (4) qui est délimitée par une seconde gaine (11) définissant un second espace intérieur (12), mais ladite seconde gaine (11) est pourvue d'une seconde fente (13) sur substantiellement la longueur totale de la chambre en forme de canal (13), d'autre part, comprend les étapes de fournir une première section (1) avec une première gaine (7) définissant un premier espace intérieur (8), mais ladite première gaine (7) est pourvue d'une première fente (9) sur substantiellement la longueur totale de la première section (1), par laquelle la moitié de fermeture à glissière (2) est insérée dans le premier espace intérieur (8) tandis que l'étoffe ou analogue (3) s'étend à travers la première fente (9), après quoi la première section (1) est fournie dans la chambre en forme de canal (4), en particulier avec la première fente (9) dans ou près de la partie la plus cachée de la chambre en forme de canal (4), c.-à-d. dans la zone de la chambre en forme de canal éloignée de la seconde fente (13), tandis que l'étoffe ou analogue (3) passe à travers la seconde fente (13).

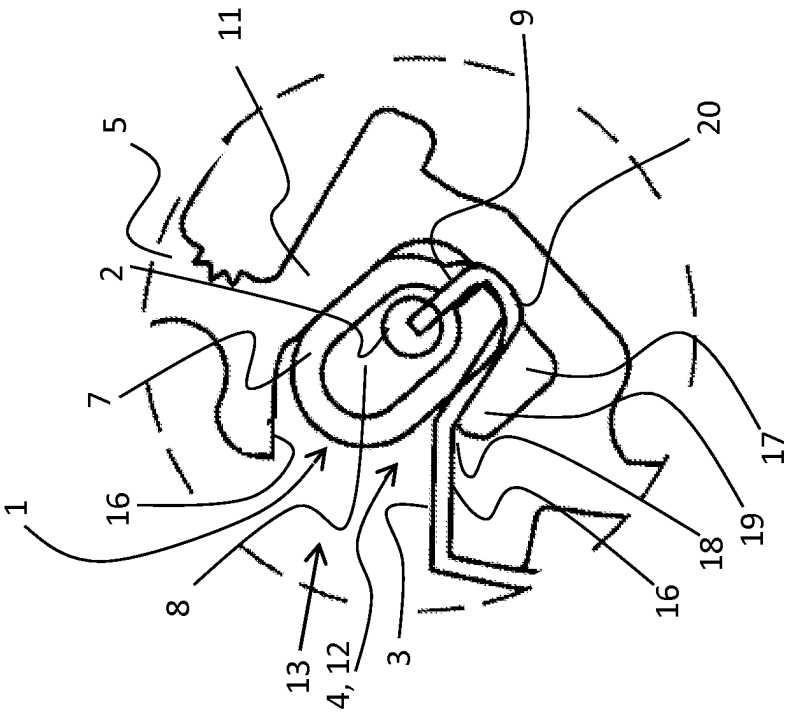

Fig 3

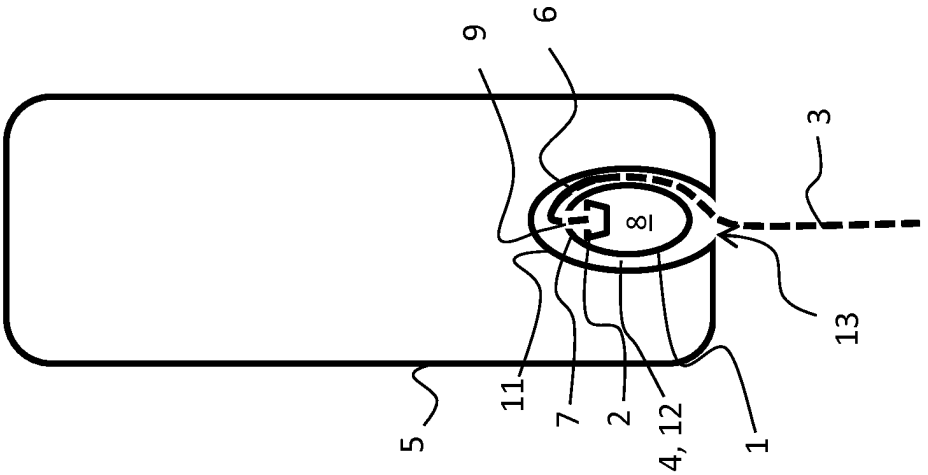

Fig 2

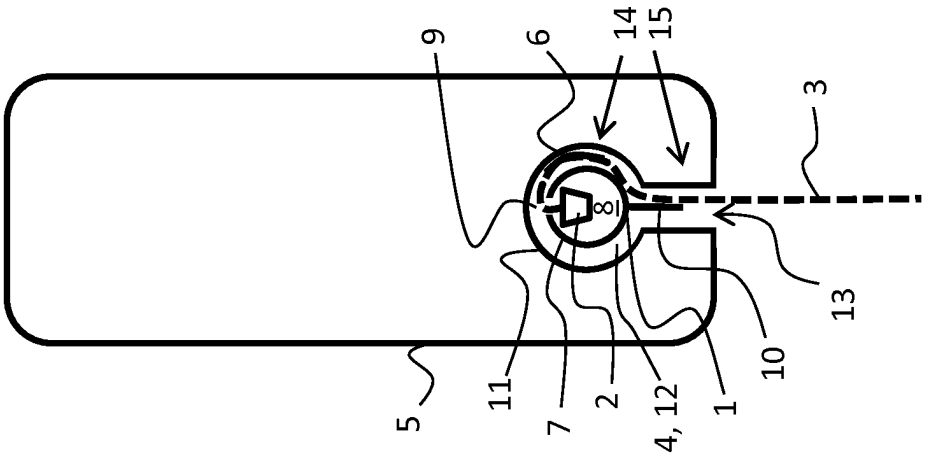

Fig 1

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- BE 905440 **[0017] [0019]**