

Description

Background of the invention

1. Field of the invention

This invention relates to an apparatus for blocking the release of a slide fastener, which is used for closing and opening a baggage or the like, caused by the movement of a slider.

2. Prior Art

Where products are sent by baggage or the like, closed and opened with a slide fastener, the baggage should be kept closing while it is carried. The slide fastener is opened and closed by the movement of a slider, and the release of the slide fastener is caused by the movement of the slider in a direction for opening the slide fastener. Accordingly, in order to keep it closed the movement of the slider should be blocked by a blocking member. Several kinds of blocking members are proposed such as a lock mechanism, fitted to the baggage, and a padlock used in a slide fastener. In this slide fastener, a pair of sliders are mounted on the rows of slide fastener elements. A pair of ring-projections are provided at the front end of the sliders respectively. When the sliders are moved forwardly to be contacted with each other for closing the slide fastener, the ring-projections are interlocked so that the eyes of the ring-projections are overlapped. Then, the padlock is inserted through the overlapped eyes for padlocking operation. As a result, the release of the slide fastener caused by the movement of the sliders, is blocked under this operation. However, according to these conventional apparatuses, a duplicate key should be separately sent to a receiver. As an alternative means, in stead of the above padlock, one end of a wire is inserted through the overlapped eyes and sealed with the other end of the wire by lead. However, in this case, since a sealed portion is exposed to be visible, the portion is broken easily on purpose. Further, since the portion is often caught by something, the sealing portion falls down and damage is caused to the slide fastener tape or the baggage.

US-A-2 621 387, on which the preamble of claim 1 is based, discloses a slide fastener in combination with a device for blocking release of the slide fastener, comprising at least a first slider mounted upon two rows of fastener elements, said first slider being provided with a first ring-projection and an interlockable member, said interlockable member being provided with a second ring projection; wherein said first ring-projection and said second ring-projection are mutually interlockable and each have at least one respective eye extending therethrough, which eyes substantially overlap when said first and second ring projec-

tions are brought together so as to interlock; and a blocking member which supports and ensures the interlocking of said first ring projection with said second ring projection.

WO-A-8 100 839 discloses a blocking member which comprises a pair of engaging members each provided with a stud; wherein said studs are each insertable, from opposing sides, through the overlapped eyes of said first and second ring projections, during interlocking, and which engage each other through said eyes so as not to be easily removed or pulled out.

Summary of the invention

It is therefore an object of the present invention to provide an apparatus which blocks easily and surely the release of a slide fastener, caused by the movement of sliders, and whose sealing portion is invisible so as not to be broken.

According to the present invention, there is provided a slide fastener in combination with a device for blocking release of the slide fastener according to claim 1.

Preferred embodiments of the invention are set out in dependent claims 2 and 3. Further object and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawing wherein preferred embodiments of the present invention are clearly shown by way of example.

Brief Description of the Drawings

Fig. 1 is a perspective exploded view of a first embodiment of an apparatus for blocking the release of a slide fastener;

Fig. 2 is a sectional view of a female engaging member;

Fig. 3 is a sectional view of a male engaging member;

Fig. 4 is a sectional view showing a pair of engaging members which are engaged with each other;

Fig. 5 is a side view of a male engaging member;

Fig. 6 is a perspective exploded view of a second embodiment of an apparatus for blocking the release of a slide fastener;

Fig. 7 is a perspective view showing an alternative embodiment of some ring-projections;

Fig. 8 is a perspective view showing an alternative embodiment of some engaging members; and

Fig. 9 is a sectional view showing the engaging members of Fig. 8 where the engaging members are engaged.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Now, example of the present invention will be described more particularly.

In the first embodiment shown in Fig. 1, a slide fastener 1 comprises a pair of sliders 2, 3, a pair of fastener tapes, two rows of coupling fastener elements being secured to the fastener tapes respectively. The sliders 2, 3, arranged in mutually opposite orientations are slidably mounted on the two rows of the fastener elements. The front end of each slider 2, 3 is provided with a respective ring-projection 4, 5 having an eye 4', 5'. In this embodiment, the front half of each ring-projection 4, 5 is made less thick than its rear half, in order to allow the front ends to be brought into flush contact with each other. Then, when the sliders 2, 3 are moved forwardly, from opposite directions, to be brought into contact with each other for closing the slider fastener 1, the ring-projections 4, 5 can be interlocked with each other so that the eyes 4', 5' are overlapped. For blocking the release of the slide fastener 1, caused by the movement of the sliders 2, 3, a pair of female and male engaging members 6, 7 are engaged through the overlapped eyes 4', 5'. As shown in Figs. 1, 2, the female engaging member 6, molded from a synthetic resin material, comprises a flange 8, a cover portion 9 and a stud 10. The flange 8 covers the external side of the ring-projection 4. The cover portion 9 is provided integrally with, and so as to be below, the flange 8 and extends in the direction of the slide fastener 1, toward both sides, from the flange 8. When the sliders have been moved forwardly to contact with each other from opposite directions, the flange 8 can cover the external sides of both sliders 2, 3 including the unclosed portion of a row of slide fastener elements between the sliders 2, 3. The cylindrical shaped stud 10 projects from the center of the flange 8 laterally in relation to the direction of the slide fastener 1 so as to be capable of being pushed through the eyes 4', 5' when the ring-projections 4, 5 are interlocked. At least a pair of resilient tongues 11, 11 are attached along the internal surface of the stud 10. Each resilient tongue 11, 11 has a distal end which is unattached to the internal side surface of the stud, and is configured to form a claw 12. The claws 12, 12 face each other inside the stud 10. The flange 8 has a window which communicates with the interior of the stud 10 due to its production method of being molded from synthetic resin material.

As shown in Figs. 1, 3, the male engaging member 7, which is molded from a synthetic resin material, comprises a flange 13, a cover portion 14 and a stud 15. The flange 13 covers the external side of the ring-projection 5. The cover portion 14 is integrally provided below the flange 13. The structure of the male engaging member 7 is similar to that of the female engaging member 6 with an exception that the rod shaped

stud 15 projects from the center of the flange 13 to be pushed into the hole of the cylindrical shaped female stud 10. A number of circumferential engagement grooves 16 are formed on the external circumference of the stud 15 so that jagged upper and lower lines are formed on the stud 15 in its cross section. A swollen portion 17 is formed at the base of the stud 15 at a short distance from the flange 13 so as to plug the hole of the female stud 10 when the stud 15 is inserted into the hole. Further, as shown in Fig. 5, the stud-side surface of the flange 13 is slanted away from the stud 15, from its root to the upper end of the flange 13, with an angle θ so as to form a slanted surface 13'. The slanted surface can be formed on the stud-side surface of the female flange 8. However, it is enough that the slanted surface is provided on either the male flange 13 or the female flange 8. In each groove 16, a tapered surface from the base-side to the fore end-side of the stud 15 is formed. The number of the grooves 16 might be one. However, several grooves 16 are preferred to be provided. The reason of this is as follows. As described hereinbefore, the female flange 8 has the window, which communicates with the interior of the female stud 10. If only one groove 16 is provided, the claws 12, 12 are seen to be engaged to the groove 16 from the window, which is insecure. Therefore, it is preferred that several grooves 16 are formed and that the claws 12, 12 are engaged to one groove 16, which is the second groove 16 from the fore end of the male stud 15. As so doing, it is invisible that the claws 12 are engaged to the groove 16. However, when a female engaging member 6 which has no window can be formed, even if only one groove 16 is provided, it is invisible that the claws 12 are engaged to the groove 16.

Now, operation in this embodiment will be described.

In order that the release of the slide fastener 1, caused by the movement of the sliders 2, 3, is blocked by the female and male engaging members 6, 7, the following operation is carried out. When the sliders 2, 3 arranged in opposition are moved forwardly to be contacted with each other for closing the slide fastener 1, the ring-projections 4, 5 are interlocked so that the eyes 4', 5' are overlapped. Then, the female stud 10 is pushed through the overlapped eyes 4', 5' from a female side until the female flange 8 stops at the ring-projection 4. Next, the male stud 15 is pushed into the female stud 10 until the male flange 13 stops at the ring-projection 5. In so doing, the claws 12, 12 of the female stud 10 engage a groove 16 of the male stud 15. Accordingly, the male and female engaging members 6, 7 are engaged integrally so as not to be removed and not to be pulled out. Therefore, the slide fastener 1 is closed and the release of the slide fastener 1, caused by the movement of the sliders 2, 3, is blocked. Since the swollen portion 17 plugs the hole of the female stud 10, so

that the engagement of the claw 12 to the groove 16 is ensured, the engagement of both engaging members 6, 7 is further ensured.

The slide fastener 1, whose release caused by the movement of the slider 2, 3 has been blocked by above mentioned operation, is allowed to slide as follows. Due to the slanted surface 13' of the male flange 13, a small space is formed at the root of the male stud 15. Accordingly, it is easy to cut away the base of the male stud 15 with a cutter such as a sheather, a small knife and the like which is inserted in the space. In so doing, the male flange 13 is removed while the most of the male stud 15 is left as it is engaged to the female stud 10. However, when the female engaging member 6 is pulled out, the engaging members 6, 7 are effectively disengaged from each other. Therefore, the sliders 2, 3 can be moved backwardly to be apart from each other for opening the slide fastener 1.

Each cover portion 9, 14 of each engaging member 6, 7 is provided for covering each external side of the unclosed portion of each row of the slide fastener elements. Therefore, the slide fastener 1 is not openable at that portion by a force which would pull each row of the slide fastener elements laterally and externally in relation to the direction of the slide fastener 1.

A second embodiment of the present invention is shown in Fig. 6. The structure of a slide fastener 1 related to the second embodiment is similar to that of the slide fastener 1 related to the first embodiment with an exception that an end stop 18 is used in the second embodiment instead of the slider 3 of the first embodiment. The slide fastener 1 is provided with a slider 2 and the end stop 18, which is mounted on the two rows of slide fastener elements and which is fixed at the end of the rows. The front ends of the slider 2 and the end stop 18 are provided with a slider-ring-projection 4 with an eye 4' and an end stop-ring-projection 19 with an eye 19' respectively. When the slider 2 is moved forwardly to be contacted with the end stop 18, the ring-projections 4, 19 become interlocked with each other so that the eyes 4', 19' are overlapped. For blocking the release of the slide fastener, 1 caused by the movement of the slider 2, a pair of female and male engaging members 6, 7 are engaged by the engagement of studs 10, 15 through the overlapped eyes 4', 19'.

The female and male engaging members 6, 7 have a similar structure to the above mentioned engaging members 6, 7 of the first embodiment. That is to say, in an apparatus of the second embodiment, the female engaging member 6 is also provided with a flange 8, a cover portion 9, a cylindrical shaped stud 10, resilient tongues 11 and claws (not shown). Then, the male engaging member 7 of this apparatus is also provided with a flange 13, a cover portion 14, the rod shaped stud 15, circumferential engaged grooves 16

and a swollen portion 17. Since this second embodiment is applied for a combination of the slider 2 and the end stop 18, each cover portion 9, 14 is provided so as to be below each flange 8, 13 integrally and extend in the direction of the slide fastener 1 for covering an unclosed portion of each row of slide fastener elements but only in the direction of the slider-side from the flange 8, 13.

A pair consisting of a slider-ring-projection 24 and an end stop-ring-projection 25, shown in Fig. 7, are a modified embodiment of the pair of slider-ring-projection 4 and the end stop-ring-projection 19 shown in Fig. 6. The front end of the slider 20 and the end stop 21 are provided with a slider-ring-projection 24 with an eye 24' and an end stop-ring-projection 25 with an eye 25' respectively. The end stop-ring-projection 25 consists of two parallel projections while the slider-ring-projection 24 consists of one projection. When the slider 20 is moved forwardly to be contacted with the end stop 21, the one projection of the slider-ring projection 24 is fitted between the two parallel projections of the end stop-ring-projection 25. Accordingly, both ring-projections 24, 25 can be interlocked with each other so that the eyes 24', 25' are overlapped, where the studs 10, 15 (Figs. 1, 6) engage each other. Finally, the release of the slide fastener 1 caused by the movement of the slider 20 is blocked surely. Although the ring-projection 24 with the one projection is provided at the slider 20 in Fig. 7, it also can be provided at the end stop 21, while the ring-projection 25 with the two projections is provided at the slider 20.

Another embodiment of the pair of engaging members 6, 7 is shown in Figs. 8, 9. Both engaging members 26, 27 of this embodiment have a same structure and are designed so as to be engaged with each other for blocking the release of the slide fastener 1 (Figs. 1, 6, 7) caused by the movement of the slider 2, 3, 20 (Figs. 1, 6, 7). Although in Fig. 9, the pair of engaging members 26, 27 are applied to a combination of the ring-projections 24, 25, they can be also applied other combinations of ring-projections 4, 5 (Fig. 1) and 4, 19 (Fig. 6). The pair of studs 30, 30 differ from the above mentioned pairs of studs 10, 15 (Figs. 1, 2, 3, 4, 5 and 6) in that they have a similar structure with a symmetrical arrangement of engaging portions 31, 31 and engaged notches 32, 32. The engaging portions 31, 31 are located at the fore end of the studs 30, 30 respectively and the engaged notches 32, 32 are located right behind the engaging portions 31, 31 respectively. Then, a groove 33 is formed at the root of either stud 30, 30 in which a cutter may be inserted for easy cutting of the base of this stud 30, 30. Although in Fig. 8, cover portions 29, 29 are provided so as to be below flanges 28, 28 respectively and extended in the direction of the slide fastener 1 toward both sides of flanges 28, 28 respectively, they can be extended in the direction toward either

side of the flange 28, 28 in the same manner as the above mentioned cover portions 9, 14 (Fig. 6).

Operation of this embodiment is as follows. The studs 30, 30 are pushed through the eyes 4', 5' (Fig. 1) or 4', 19' (Fig. 6). In so doing, each engaging portion 31, 31 of each stud 30, 30 engages each engaged notch 32, 32 of the other stud 30, 30 due to the symmetrical arrangement of the studs. Therefore, both engaging members 26, 27 engage each other so as not to be removable and not to be pulled out. As a result, the release of the slide fastener 1 caused by the movement of the slider 2, 3, 20 (Figs. 1, 6, 7) is blocked surely.

For allowing the release of the slide fastener 1 caused by the movement of the slider 2, 3, 20 in the above embodiments (Figs. 6, 7, 8, 9), the method of the first embodiment can be used. That is to say, the base of either stud 10, 15, 30 is cut and another side engaging member 6, 7, 26, 27 is pulled out. In so doing, the engaging members 6, 7, 26, 27 are disengaged from each other. Therefore, the slider 2, 3, 20 can be moved backwardly away from another slider 2, 3 or the end stop 18, 21 for opening the slide fastener 1.

While preferred embodiments have been described, these are given by way of example only and it will be apparent that the present invention is not limited to the abovementioned specific embodiments thereof.

Claims

1. A slide fastener (1) in combination with a device for blocking release of the slide fastener, comprising at least a first slider (2, 3, 20) mounted upon two rows of fastener elements, said first slider being provided with a first ring-projection (4, 5, 24), and an interlockable member (3, 2, 18, 21), said interlockable member being provided with a second ring projection (5, 4, 19, 25); wherein said first ring-projection and said second ring-projection are mutually interlockable and each have at least one respective eye (4', 5', 19') extending therethrough, which eyes substantially overlap when said first and second ring projections are brought together so as to interlock; and a blocking member (6, 7, 26, 27) which supports and ensures the interlocking of said first ring projection with said second ring projection;

characterised in that said blocking member (6, 7, 26, 27) comprises a pair of engaging members (6, 7, 26, 27) each provided with a stud (10, 15, 30, 30); wherein said studs are each insertable, from opposing sides, through the overlapped eyes of said first and second ring projections, during interlocking, and which engage each other through said eyes so as not to be easily re-

moved or pulled out, and in that at least one said engaging member (6, 7, 26, 27) has a cover portion (9, 14, 29, 29) for partially covering the unclosed portion of the two rows of slide fastener elements between said slider (2, 3, 20) and said interlockable member (3, 2, 18, 21).

2. An apparatus for blocking the release of a slide fastener according to claim 1; wherein said interlockable member (3, 2) is a second slider (3, 2) which is disposed in opposition to said first slider (2, 3).
3. An apparatus for blocking the release of a slide fastener according to claim 1; wherein said interlockable member (18, 21) is an end stop (18, 21) mounted on the two rows of slide fastener elements.

Patentansprüche

1. Reißverschluß (1) in Verbindung mit einer Vorrichtung zum Verhindern der Öffnung des Reißverschlusses, bestehend aus zumindest einem ersten auf zwei Reihen von Verschlusselementen angebrachten Schieber (2, 3, 20), der mit einem ersten Ringansatz (4, 5, 24) versehen ist und aus einem damit verriegelbaren Bauteil (3, 2, 18, 21) mit einem zweiten Ringansatz (5, 4, 19, 25), wobei der erste Ringansatz und der zweite Ringansatz gegeneinander verriegelbar sind und jeweils zumindest ein sie durchsetzendes Auge (4', 5', 19') aufweisen, welche Augen sich im wesentlichen überlappen, wenn besagter erster und zweiter Ringansatz zum Verriegeln zusammengefügt werden, und ferner aus einem Verriegelungsglied (6, 7, 26, 27), das die Verriegelung zwischen dem ersten Ringansatz und dem zweiten Ringansatz unterstützt und sicherstellt, dadurch gekennzeichnet, daß das Verriegelungsglied (6, 7, 26, 27) ein paar Kuppelglieder (6, 7, 26, 27) umfaßt, die je mit einem Zapfen (10, 15, 30, 30) versehen sind, wobei diese Zapfen während des Verriegelns jeweils von entgegengesetzten Seiten durch die sich überlappenden Augen des ersten und zweiten Ringansatzes durchführbar und miteinander zum Erschweren des Entfernens und Herausziehens durch die Augen hindurch verrastbar sind, und daß zumindest eines der Kuppelglieder (6, 7, 26, 27) ein Abdeckteil (9, 14, 28, 29) zum teilweisen Abdecken des unverschlossenen Abschnittes der beiden Reihen aus Reißverschlußelementen zwischen Schieber (2, 3, 20) und dem damit verriegelbaren Bauteil (3, 2, 18, 21) aufweist.
2. Vorrichtung zum Verhindern der Öffnung eines



side of the flange 28, 28 in the same manner as the above mentioned cover portions 9, 14 (Fig. 6).

Operation of this embodiment is as follows. The studs 30, 30 are pushed through the eyes 4', 5' (Fig. 1) or 4', 19' (Fig. 6). In so doing, each engaging portion 31, 31 of each stud 30, 30 engages each engaged notch 32, 32 of the other stud 30, 30 due to the symmetrical arrangement of the studs. Therefore, both engaging members 26, 27 engage each other so as not to be removable and not to be pulled out. As a result, the release of the slide fastener 1 caused by the movement of the slider 2, 3, 20 (Figs. 1, 6, 7) is blocked surely.

For allowing the release of the slide fastener 1 caused by the movement of the slider 2, 3, 20 in the above embodiments (Figs. 6, 7, 8, 9), the method of the first embodiment can be used. That is to say, the base of either stud 10, 15, 30 is cut and another side engaging member 6, 7, 26, 27 is pulled out. In so doing, the engaging members 6, 7, 26, 27 are disengaged from each other. Therefore, the slider 2, 3, 20 can be moved backwardly away from another slider 2, 3 or the end stop 18, 21 for opening the slide fastener 1.

While preferred embodiments have been described, these are given by way of example only and it will be apparent that the present invention is not limited to the abovementioned specific embodiments thereof.

Claims

1. A slide fastener (1) in combination with a device for blocking release of the slide fastener, comprising at least a first slider (2, 3, 20) mounted upon two rows of fastener elements, said first slider being provided with a first ring-projection (4, 5, 24), and an interlockable member (3, 2, 18, 21), said interlockable member being provided with a second ring projection (5, 4, 19, 25); wherein said first ring-projection and said second ring-projection are mutually interlockable and each have at least one respective eye (4', 5', 19') extending therethrough, which eyes substantially overlap when said first and second ring projections are brought together so as to interlock; and a blocking member (6, 7, 26, 27) which supports and ensures the interlocking of said first ring projection with said second ring projection;

characterised in that said blocking member (6, 7, 26, 27) comprises a pair of engaging members (6, 7, 26, 27) each provided with a stud (10, 15, 30, 30); wherein said studs are each insertable, from opposing sides, through the overlapped eyes of said first and second ring projections, during interlocking, and which engage each other through said eyes so as not to be easily re-

moved or pulled out, and in that at least one said engaging member (6, 7, 26, 27) has a cover portion (9, 14, 29, 29) for partially covering the unclosed portion of the two rows of slide fastener elements between said slider (2, 3, 20) and said interlockable member (3, 2, 18, 21).

2. An apparatus for blocking the release of a slide fastener according to claim 1; wherein said interlockable member (3, 2) is a second slider (3, 2) which is disposed in opposition to said first slider (2, 3).
3. An apparatus for blocking the release of a slide fastener according to claim 1; wherein said interlockable member (18, 21) is an end stop (18, 21) mounted on the two rows of slide fastener elements.

Patentansprüche

1. Reißverschluß (1) in Verbindung mit einer Vorrichtung zum Verhindern der Öffnung des Reißverschlusses, bestehend aus zumindest einem ersten auf zwei Reihen von Verschlüsselementen angebrachten Schieber (2, 3, 20), der mit einem ersten Ringansatz (4, 5, 24) versehen ist und aus einem damit verriegelbaren Bauteil (3, 2, 18, 21) mit einem zweiten Ringansatz (5, 4, 19, 25), wobei der erste Ringansatz und der zweite Ringansatz gegeneinander verriegelbar sind und jeweils zumindest ein sie durchsetzendes Auge (4', 5', 19') aufweisen, welche Augen sich im wesentlichen überlappen, wenn besagter erster und zweiter Ringansatz zum Verriegeln zusammengefügt werden, und ferner aus einem Verriegelungsglied (6, 7, 26, 27), das die Verriegelung zwischen dem ersten Ringansatz und dem zweiten Ringansatz unterstützt und sicherstellt, dadurch gekennzeichnet, daß das Verriegelungsglied (6, 7, 26, 27) ein paar Kuppelglieder (6, 7, 26, 27) umfaßt, die je mit einem Zapfen (10, 15, 30, 30) versehen sind, wobei diese Zapfen während des Verriegelns jeweils von entgegengesetzten Seiten durch die sich überlappenden Augen des ersten und zweiten Ringansatzes durchführbar und miteinander zum Erschweren des Entfernens und Herausziehens durch die Augen hindurch verrastbar sind, und daß zumindest eines der Kuppelglieder (6, 7, 26, 27) ein Abdeckteil (9, 14, 28, 29) zum teilweisen Abdecken des unverschlossenen Abschnittes der beiden Reihen aus Reißverschlußelementen zwischen Schieber (2, 3, 20) und dem damit verriegelbaren Bauteil (3, 2, 18, 21) aufweist.
2. Vorrichtung zum Verhindern der Öffnung eines



Reißverschlusses nach Anspruch 1, wobei das verriegelbare Bauteil (3, 2) ein zweiter Schieber (3, 2) ist, der entgegengesetzt zum ersten Schieber (2, 3) angeordnet ist.

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re à glissière selon la revendication 1, dans lequel l'élément verrouillable (18, 21) est une butée d'extrémité (18, 21) montée sur les deux rangées d'éléments d'accouplement.

3. Vorrichtung zum Verhindern der Öffnung eines Reißverschlusses nach Anspruch 1, wobei das verriegelbare Bauteil (18, 21) ein auf den beiden Reihen von Reißverschlußelementen angebrachtes Endteil (18, 21) ist.

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Revendications

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1. Fermeture à glissière (1) en combinaison avec un dispositif pour bloquer la libération de la fermeture à glissière, comprenant au moins un premier curseur (2, 3, 20) monté sur deux rangées d'éléments d'accouplement, ledit premier curseur étant pourvu d'une première saillie annulaire (4, 5, 24) et d'un élément verrouillable (3, 2, 18, 21), ledit élément verrouillable étant pourvu d'une seconde saillie annulaire (5, 4, 19, 25), ladite première saillie annulaire et ladite seconde saillie annulaire pouvant être verrouillées mutuellement et chacune comportant au moins un oeil traversant respectif (4', 5', 19'), lesdits oeil se recouvrant sensiblement lorsque les première et seconde saillies annulaires sont amenées l'une avec l'autre en vue d'un verrouillage; et un élément de blocage (6, 7, 26, 27) qui maintient et assure le verrouillage mutuel de la première saillie annulaire avec la seconde saillie annulaire;

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caractérisée en ce que ledit élément de blocage (6, 7, 26, 27) comprend une paire d'éléments d'assemblage (6, 7, 26, 27) comportant chacun un tenon (10, 15, 30, 30), lesdits tenons pouvant être chacun insérés, depuis les côtés opposés, à travers les oeil se recouvrant desdites première et seconde saillies annulaires, pendant le verrouillage, et étant engagés l'un dans l'autre à travers lesdits oeil de manière à ne pas pouvoir être facilement retirés ou extraits, et en ce qu'au moins un élément d'assemblage précité (6, 7, 26, 27) comporte une partie de recouvrement (9, 14, 29, 29) pour recouvrir partiellement la partie non fermée des deux rangées d'éléments d'accouplement de la fermeture à glissière entre ledit curseur (2, 3, 20) et ledit élément verrouillable (3, 2, 18, 21).

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2. Appareil pour bloquer la libération d'une fermeture à glissière selon la revendication 1, dans lequel l'élément verrouillable (3, 2) est un second curseur (3, 2) qui est disposé de façon opposée par rapport audit premier curseur (2, 3).

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3. Appareil pour bloquer la libération d'une fermetu-

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