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Inventor(s)	KASHIWABARA; Yasunori

POUCH

Abstract

Provided is a pouch which is smoothly and easily opened and closed by a method of engaging/disengaging recessed and raised strips. This pouch has, on one surface thereof, a recessed strip and/or raised strip, and on another surface thereof, a raised strip and/or recessed strip opposite the recessed strip and/or raised strip, and also includes a slider for engaging/disengaging the recessed strip and the raised strip. The slider has a section satisfying [5≤(maximum width of at least a portion of the slider)/(outer width of the engaged portion when the recessed strip and the raised strip are engaged)].

Inventors: **KASHIWABARA; Yasunori (Tokyo, JP)**

Applicant: **OAK International Co., Ltd.** (Tokyo, JP)

Family ID: **1000008600395**

Assignee: **OAK International Co., Ltd. (Tokyo, JP)**

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Background/Summary

TECHNICAL FIELD

[0001] The present invention relates to a pouch such as an accessory case.

BACKGROUND ART

[0002] A pouch P is proposed for storing articles such as cosmetic utensils and other personal belongings.

[0003] The followings are known: a pouch shown in FIG. **2** (JU1988-115321A: numbers and/or symbols in FIG. **2** are referred to those of JU1988-115321A), a pouch shown in FIG. **3** (JU3202688B: numbers and/or symbols in FIG. **3** are referred to those of JU3202688B), a pouch shown in FIG. **4** (JU3204327B: numbers and/or symbols in FIG. **4** are referred to those of JU3204327B), and a pouch shown in FIG. **5** (JU3214956B: numbers and/or symbols in FIG. **5** are referred to those of JU3214956B). Those pouches P employ a fastener (slide fastener, which is also referred to as zipper) at an opening and closing section thereof. Those pouches P include a gripping piece (slider) 25, 17a for opening and closing the fastener. There is a case where the gripping piece (slider) has a strap (decoration) (see, FIG. **3**). There is also a case where the gripping piece (slider) has a ring 18 (see, FIG. **5**).

[0004] A pouch P employing a fastener (slide fastener) having a structure different from FIG. **3**, FIG. **4**, and FIG. **5** is also proposed. Examples thereof include pouches shown in FIG. **6**, FIG. **7**, and FIG. **8** (JP2018-191966A: numbers and/or symbols in FIG. **6**, FIG. **7**, and FIG. **8** are referred to those of JP2018-191966A), pouches shown in FIG. **9**, FIG. **10**, and FIG. **11** (JP2019-209199A: numbers and/or symbols in FIG. **9**. FIG. **10**, and FIG. **11** are referred to those of JP2019-209199A), and pouches shown in FIG. **12** and FIG. **13** (JP2021-59389A: numbers and/or symbols in FIG. **12** and FIG. **13** are referred to those of JP2021-59389A). Those pouches P have such a structure in the opening and closing section that a recessed strip provided on an inner surface side of one surface of the pouch P engages with a raised strip provided on an inner surface side of another surface of the pouch P. The engagement/disengagement between the recessed strip and the raised strip (opening and closing of the opening and closing section) is performed by sliding (moving) a slider **20**, **5**, **120**. The engagement between the recessed strip and the raised strip (closure of an opening) is performed by sliding the slider **20**, **5**, **120** in a closing direction (in a leftward direction in FIG. **12**). At a position where the slider **20**, **5**, **120** exists, interior walls of the slider press the recessed strip and the raised strip toward an engaging direction (an inward direction). In this manner, the recessed strip (groove, trench, linear concave) and the raised strip (convex stripe, ridges, linear convexity) engage with each other (i.e., the opening is closed). Conversely, when the slider **20**, **5**, **120** is caused to slide in an opening direction (in a rightward direction in FIG. **12**), a tongue piece (**23** (see, FIG. **8**), **5***b* (see, FIG. **11**)) provided on the slider **20**, **5**, **120** disengages the engagement between the recessed strip and the raised strip (opens the opening).

[0005] The slide fasteners shown in FIG. **3** to FIG. **5** have a structure somewhat different from that of the slide fasteners shown in FIG. **6** to FIG. **13**. The slide fasteners shown in FIG. **3** to FIG. **5** have female parts and male parts but do not have the recessed strip and the raised strip as held by the slide fasteners shown in FIG. **6** to FIG. **13**.

CITATION LIST

Patent Literature
[Patent Literature 1]
[0006] JU1987-5008A
[Patent Literature 2]
[0007] JU1988-115321A
[Patent Literature 3]
[0008] JU1995-109A
[Patent Literature 4]
[0009] JU3202688B
[Patent Literature 5]
[0010] JU3204327B
[Patent Literature 6]
[0011] JU3214956B
[Patent Literature 7]
[0012] JU3226278B
[Patent Literature 8]
[0013] JP1999-276216A
[Patent Literature 9]
[0014] JP2012-40364A
[Patent Literature 10]
[0015] JP2018-191966A
[Patent Literature 11]
[0016] JP2019-209199A
[Patent Literature 12]
[0017] JP2021-59389A
[Patent Literature 13]
[0018] WO2017/150700
[Patent Literature 14]
[0019] U.S. Pat. No. 2,148,757
SUMMARY OF INVENTION
Technical Problem
[0020] Conventionally, there has been a difficulty in smooth sliding of the slider.
[0021] Particularly, in the slide fastener of which opening and closing was operated by performing engagement/disengagement between a recessed strip and a raised strip, a sliding operation (an opening and closing operation) of the slider could not be performed smoothly.
[0022] In view of the above, the present invention is made to solve the above-described problem. The present invention is directed to provide a pouch which is smoothly and easily opened and closed by using a slide fastener (which is opened and closed by performing engagement/disengagement between a recessed strip and a raised strip), and which is also full of character.
Solution to Problem
[0023] The present inventor studied the reason why slide fasteners of a type shown in FIG. **6** to FIG. **13** had a poor operability in sliding of the slider.
[0024] As a result, the inventor found a fact that the small size of the slider gives a difficulty in holding the slider by a hand (in applying a force to the slider).
[0025] In the slide fastener of which opening and closing was operated by the engagement/disengagement between the recessed strip (groove, trench, linear concave) and the raised strip (convex stripe, ridges, linear convexity), a thickness (an outer width: a width dimension W of the slide fastener in a plan view) of a portion where the recessed strip and the raised strip are in an engaging state is about 2 mm. The outer width (a width dimension of the slider in a plan

view) of the slider which was provided crossing over the recessed strip and the raised strip was up to about 6 mm. A height was about 7 mm. A pouch used as an accessory case generally has a small outer dimension. Therefore, a total length (a length in a sliding direction) of the slider was about 1 cm.

[0026] Because of such small size of the slider, it was troublesome to move the slider by gripping the slider with a hand (by hooking the slider with a finger).

[0027] Particularly, the outer width (about 6 mm) of the slider which is pinched by a thumb and a forefinger has a distance narrower than a distance between the thumb and the forefinger (natural distance: about 15-20 mm). Therefore, for pinching the slider between the thumb and the forefinger, an unusual (excessive) gripping force is required. It is necessary to pinch the slider in a conscious manner.

[0028] In other words, upon sliding of the slider, the user needs to grip the sider forcefully with the fingers. This makes it difficult to cause the slider to move smoothly. This does not match the human engineering.

[0029] Here, the inventor tried to attach a large character catch (figure: “the large” means a relatively large size compared to the “small size” of slider body) to the small slider body. As a result, the slider could be smoothly slid (moved).

[0030] There is a pouch with a slider having a ring of a size in which a finger (e.g., a forefinger) can be hooked. Such kind of pouch also had a poor operability in the slider. The inventor continued to study about the cause thereof.

[0031] Hooking of a finger in the ring makes it possible to slide the slider. Pinching of a clip piece by fingers makes it possible to slide the slider.

[0032] In this case, however, a direction for pulling the ring (or the clip piece) to slide the slider had a certain angle (e.g., at an angle of 45°) with respect to a direction in which the recessed strip and the raised strip extend. A direction in which a force is applied to slide the slider and a direction in which the slider slides (a direction in which the recessed strip and the raised strip extend) were not parallel with each other. In a case where the directions cross at an angle of, for example, 45°, if sliding of the slider in the direction in which the recessed strip and the raised strip extend requires a force of X gw, a force of (2).sup.1/2×gw is required for pulling the ring (or the clip piece). That is, a large force more than 1.4 folds was required.

[0033] Based on the above-described knowledge, the present invention was made.

[0034] The present invention is directed to [0035] a pouch with a slide fastener and a slider for opening and closing the slide fastener, [0036] wherein the slider has a portion at which [5≤(a maximum width at least at a portion of the slider)/(a width of the slide fastener)] is satisfied.

[0037] The present invention is directed to [0038] the pouch with the slide fastener (having a recessed strip (and/or a raised strip) on one side, and having a raised strip (and/or a recessed trip) opposing to the recessed strip (and/or the raised strip) on the other side), and a slider for opening and closing (for performing an engagement/disengagement between the recessed strip and the raised strip) the slide fastener: [0039] wherein the slider has a portion at which [5≤(a maximum width at least at a portion of the slider)/(an outer width at an engaging section when the recessed strip and the raised strip are in an engaging state)] is satisfied.

[0040] The present invention is directed to the pouch, wherein the maximum width in the slider is, preferably, 1.2 cm or greater.

[0041] The present invention is directed to the pouch, wherein a maximum length in the slider is, preferably, 3 cm or greater.

[0042] The present invention is directed to the pouch, wherein the neighboring section of the portion having the maximum width in the slider has, preferably, a bumpy surface.

[0043] The present invention is directed to the pouch, wherein the neighboring section of the portion having the maximum width in the slider is made of, preferably, a soft material or an elastic material.

[0044] The present invention is directed to the pouch, wherein the neighboring section of the portion having the maximum width in the slider is, preferably, detachable from the slider.
[0045] The present invention is directed to the pouch, wherein the neighboring section of the portion having the maximum width in the slider includes, preferably, a character catch.
Advantageous Effect of Invention
[0046] In the pouch with the slide fastener and the slider (the slider for opening and closing the slide fastener), the slider had a very good operability. Upon sliding the slider, it was not needed to forcibly grip the slider with fingers. Only necessary operation is to apply a force to the slider in a direction almost parallel with a surface of the slide fastener to thereby move the slider. It was not necessary to apply a large force. Therefore, the slider had a very good operability.
[0047] Because the slider was made larger than the conventional ones, it was easy to pinch (hook) the slider. It was also easy to apply a force to the slider. That is, the slider had a very good operability.
[0048] Because the slider was made larger than the conventional ones, it was easy to cause the slider to have a unique character catch.

Description

BRIEF DESCRIPTION OF DRAWINGS
[0049] FIG. **1** is a plan view illustrating a pouch in a partially opened state according to the present invention.
[0050] FIG. **2** illustrates the conventional pouch.
[0051] FIG. **3** illustrates the conventional pouch.
[0052] FIG. **4** illustrates the conventional pouch.
[0053] FIG. **5** illustrates the conventional pouch.
[0054] FIG. **6** illustrates the conventional pouch.
[0055] FIG. **7** illustrates the conventional pouch.
[0056] FIG. **8** illustrates the conventional pouch.
[0057] FIG. **9** illustrates the conventional pouch.
[0058] FIG. **10** illustrates the conventional pouch.
[0059] FIG. **11** illustrates the conventional pouch.
[0060] FIG. **12** illustrates the conventional pouch.
[0061] FIG. **13** illustrates the conventional pouch.
DESCRIPTION OF EMBODIMENTS
[0062] The present invention is directed to a pouch.
[0063] The pouch has a size smaller than, for example, 30 cm (length: a length in a lateral direction)×30 cm (height)×15 cm (width). For example, the pouch is made of a resin film A (which is formed into an approximately square shape (e.g., a rectangular shape) having a one side (long side) length of 30 cm (preferably, 22 cm) or smaller) and a resin film B (which is formed into an approximately square shape (e.g., a rectangular shape) having a one side (long side) length of 30 cm (preferably, 22 cm) or smaller). The film A and the film B may be made of the same material or a different material. The film A has a recessed strip (and/or a raised strip) along a one end edge thereof (along an upper end in a lateral direction: in a lateral direction at an edge of an opening side). The film B has a raised strip (and/or a recessed strip), capable of being engaged with the recessed strip (and/or the raised strip) of the film A, along a one end edge thereof (along an upper end in a lateral direction: in a lateral direction at the edge of an opening side). With the structure, the recessed strip (and/or the raised strip) of the film A and the raised strip (and/or the recessed strip) of the film B engage with each other (the raised strip mates with the recessed strip) when a force is applied to the film A and the film B in a mutually press fitting direction. Another end edges

(the remaining three sides where no recessed strip or raised strip is provided) of the film A and another end edges (the remaining three sides where no raised strip or recessed strip is provided) of the film B are welded. If a film C which is formed by the film A and the film B which are continuously connected into one sheet is employed, all that needed is to weld only two sides after forming the continuous sheet into twofold at its center. This makes it possible to form a bag (pouch). The film A and the film B are provided with a slider in a manner that the slider bridges over the recessed strip and the raised strip. Moving (moving in a direction in which the recessed strip and the raised strip extend) of the slider bridged over the recessed strip and the raised strip enables engagement between the recessed strip and the raised strip (i.e., closure of the pouch) and disengagement between the recessed strip and the raised strip (opening of the pouch). Because these constructions (structures) have been employed also in the conventional pouches, detailed descriptions thereof will be omitted here.

[0064] The slider is characterized in having a portion (shaped section) at which [5≤(a maximum width at least at a portion of the slider)/(a width of the side fastener (e.g., an outer width at an engaging section when the recessed strip and the raised strip are in an engaging state: the width is a width of the slide fastener (a dimension in a right and left direction (in an X direction) in FIG. **1**) in a plan view when the pouch is in a standing position (see, FIG. **1**))] is satisfied.

[0065] The value “5” was, preferably, “6”. More preferably, it was “7”.

[0066] The maximum width in the slider was, preferably, 1.2 cm or greater. More preferably, it was 1.5 cm or greater. Preferably, it was 3 cm or smaller. More preferably, it was 2.5 cm or smaller. Further preferably, it was 2.2 cm or smaller. Still further preferably, it was 2 cm or smaller.

[0067] In a case where the maximum width in the slider was too small, a large force was required when gripping the slider side surface portions by fingers. In a case where the maximum width in the slider was too large, fingers were needed to open excessively when gripping the slider side surface portions by fingers.

[0068] That is, the above-described dimension was decided in view of the human engineering. More specifically, the dimension was decided in view of the standard size of a hand of a young woman (distance between the thumb and the forefinger when the woman naturally opens her thumb and forefinger).

[0069] The maximum length of the slider in a sliding direction (a Y direction in FIG. **1**) was, preferably, 2.5 cm or greater. More preferably, it was 3 cm or greater. Preferably, it was 5 cm or smaller.

[0070] In the slider, a surface of the neighboring section of the portion having the maximum width is provided with, preferably, bumps. The bumps may be minute thin grooves or may be large bumps having three-dimensional shape provided on the slider itself. Accordingly, when one held the slider in her hand (by her fingers), the bumps contributed to unslipping of the slider from her hand (fingers). This contributed to easy sliding of the slider.

[0071] In the slider, the neighboring section of the portion having the maximum width is formed of, preferably, a soft material or an elastic material. Accordingly, when one held the slider in her hand (by her fingers), the material contributed to unslipping of the slider from her hand (fingers). This contributed to easy sliding of the slider.

[0072] In the slider, the neighboring section of the portion having the maximum width is formed, preferably, in a detachable manner with respect to the slider (slider body). For example, it has such a structure that a character catch (figure) can be detachably attached to the slider body. This structure makes it possible to exchange the slider (slider body) to another favorable one. The character catch is exchangeable to a favorable one as one likes. This raises one's mood. In the present invention, however, a fixed type character catch is not excluded.

[0073] In the slider, the neighboring section of the portion having the maximum width has, preferably, a shape of a unique character. It is a figure. A favorite character catch (figure) raises one's mood. Such pouch will be the good seller.

[0074] Hereinafter, exemplary embodiments will be described. The present invention, however, is not limited only to those exemplary embodiments. Unless otherwise the features of the present invention is impaired largely, various modifications and applications should be construed as being included in the scope of the present invention.

[0075] FIG. **1** illustrates an exemplary embodiment of a pouch (a plan view of the pouch of which opening is partially opened (a plan view of the pouch in the standing state)) according to the present invention.

[0076] A pouch P of the present exemplary embodiment is configured by including a resin film A (e.g., having a rectangular shape of 17 cm (lateral length)×15 cm (vertical length)) and a resin film B (e.g., having a rectangular shape of 17 cm (lateral length)×15 cm (vertical length)). The film A and the film B are made of the same kind of (preferably, the same) material. The film A and the film B are combined to be heat-welded at the three end edges (right and left side edges and a lower end edge) other than the upper end edge thereof. An upper end edge of an inner surface side of the film A is provided with a recessed strip (groove, trench, linear concave) section (a direction of the recessed strip is a Y (up and down) direction in FIG. **1**). An upper end edge of an inner surface side of the film B is provided with a raised strip (convex stripe, ridges, linear convexity) section (a direction of the raised strip is the Y (up and down) direction in FIG. **1**) opposing to the recessed strip section of the film A. The recessed strip section of the film A and the raised strip section of the film B can be engaged with each other or can be separated from one another. The recessed strip section has a width (a width in a plan view (a direction of the width is a right and left (X) direction in FIG. **1**)) of about 1.6 mm. The width (the width in a plan view) of the raised strip section is about 1.6 mm. A width (a width in a plan view (a direction of the width is the right and left (X) direction in FIG. **1**)) when the recessed strip section and the raised strip section are in an engaging state is about 2 mm. The pouch P further includes a slider **300**. The slider **300** is provided across the recessed strip section of the film A and the raised strip section of the film B. The slider **300** includes, as the conventional slider has, a tongue piece. When the slider is caused to slide in an opening direction, the tongue piece comes into between the raised strip section and the recessed strip section in an engaging state. This disengages the engagement between the raised strip section and the recessed strip section. The opening of the pouch P is opened. When the slider **300** is caused to slide in a closing direction, the interior walls of the slider apply to the raised strip section and the recessed strip section a force in a press fitting direction. This makes the raised strip section and the recessed strip section engage with each other. The opening of the pouch P is closed. Moving (sliding) of the slider **300** in the right and left direction causes the raised strip section and the recessed strip section to engage with each other or to separate from one another (the pouch P is closed or opened).

[0077] A FIG. **302** illustrated in FIG. **1** is a portion of the slider **300**. The FIG. **302** having a certain outer appearance can be detachably attached to a slider body **301** having the conventional nearly rectangular parallelepiped shape (width≈6 mm, height≈7 mm, and length=12 mm) in the present exemplary embodiment. For example, a female part to be fit to a male part provided on the slider body **301** of the nearly rectangular parallelepiped shape is formed on a bottom part of the FIG. **302** having the above-described shape. As a matter of course, in addition to the fitting structure between the female part and the male part, the slider body **301** and the FIG. **302** may have an inseparable structure. The FIG. **302** is molded by using a soft resin such as a rubber material. The maximum width of the slider (figure: character catch) in a plan view was about 14 mm. The maximum height thereof was about 15 mm. The total length thereof was about 38 mm.

[0078] In the pouch according to the present exemplary embodiment, the figure (maximum width≈14 mm, length≈38 mm) **302** has a size larger than that of the slider body (width=6 mm, length≈12 mm). With the structure, the slider (FIG. **302**) can be easily held by one's hand (hooked by one's fingers). The whole slider could be easily slid. Specifically, an outer width at a pinching position of the slider (finger **302**) pinched between a thumb and a forefinger is almost equal to a

distance (natural distance) between the thumb and the forefinger. Therefore, when pinching the slider (FIG. **302**) between the thumb and the forefinger, it is not necessary to apply an unusual (excessive) gripping force. Upon sliding the slider, it is not necessary to apply an unusual force to grip the slider. Upon sliding the slider, it is not necessary to largely open the fingers for pinching the slider with the fingers. This structure matches the human engineering. As a result, this structure realized smooth sliding of the slider. A direction in which a force is applied to slide the slider along the raised strip and the recessed strip is almost in parallel with the raised strip and the recessed strip. This eliminates an application of an unusual force. This realized easy and smooth sliding of the slider. For example, when sliding the slider by pulling a ring attached to the slider, a direction in which a force is applied from the ring to the slider is a diagonal (crossing: at an angle α) direction with respect to the raised strip and the recessed strip. Therefore, a force of [1/cos α] times is to be applied. To the contrary, such an excessive force is not required in the present invention. Because the operability of the slider was good, the opening/closing operation was easy.

[0079] A side surface of the FIG. **302** has bumps. The bumps serve to non-slipping of the hand. This contributed to easy sliding of the slider.

[0080] The FIG. **302** is formed of a soft material or an elastic material. Therefore, upon holding the slider, the hand hardly slips. This also gives a good holding feeling. This contributed to easy sliding of the slider.

[0081] The FIG. **302** is shaped into a unique character. This gives an improved design. Such design enhances the purchase motivation.

[0082] The FIG. **302** may be formed into, for example, a squirrel.

[0083] The FIG. **302** may be formed into, for example, a dog. This FIG. **302** had the maximum width (a width of a body part of the dog) of about 14 mm in a plan view. The body part includes grooves (bumps). Depending on a pose of the dog, dog legs may be considered as bumps in the vicinity of the body part. The body part had a height of about 11 mm. A whole length of the figure was about 40 mm.

[0084] The FIG. **302** may be formed into, for example, a pig. This figure had the maximum width (a width of a body part) of about 21 mm in a plan view. A head part had a height of about 20 mm. A whole length of the figure was about 38 mm.

[0085] In the present exemplary embodiment, an effect almost equivalent to that of the above-described exemplary embodiment could be produced.

[0086] The figure may be formed into any shapes (such as animal shapes) in addition to the above exemplified ones.

[0087] In the pouch, the slider for performing the engagement/disengagement between the recessed strip and the raised strip may be a separable type (e.g., a bisectional type). The slider includes a first slider and a second slider. The first slider is attached to the pouch side in a hardly disengageable manner for performing engagement/disengagement between the recessed strip and the raised strip in the pouch. The first slider has a shape and/or a structure similar to those of the conventional sliders. The second slider is attached to the first slider in a detachable manner. The second slider has an appearance of a nearly rectangular parallelepiped shape. It has a dimension in a longitudinal direction (in a slider moving direction) of 2 cm to 5 cm (preferably, 2 cm to 3 cm). It has a dimension (a width dimension) in a short-length direction of 1 cm to 3 cm (preferably, 1.2 cm to 2 cm). It has a dimension in a height direction of 0.7 cm to 2 cm (preferably, 0.8 cm to 1.2 cm). It has raised strips as a slip stopper on its side surfaces.

[0088] In the present exemplary embodiment, the features equivalent to those of the above-described exemplary embodiment could be produced.

Claims

1. A pouch, comprising: a slide fastener; and a slider for opening and closing the slide fastener, wherein the slide fastener has a recessed strip on one side, and has a raised strip opposing to the recessed strip on the other side, wherein the slider performs an engagement/disengagement between the recessed strip and the raised strip, wherein the slider has a portion satisfying [5≤(a maximum width in at least a portion of the slider)/(an outer width at an engaging section when the recessed strip and the raised strip are in an engaging state)], wherein a maximum width in the slider is 1.4 cm to 3 cm, and wherein a maximum length in the slider is 2 cm to 5 cm.

2. The pouch of claim 1, wherein the slide fastener is made of resin.

3. The pouch of claim 1, wherein, in the slider, a neighboring section of a portion having the maximum width includes bumps.

4. The pouch of claim 1, wherein, in the slider, a neighboring section of a portion having the maximum width is formed of a soft material or an elastic material.

5. The pouch of claim 1, wherein, in the slider, a neighboring section of a portion having the maximum width is formed to be detachable from the slider.

6. The pouch of claim 1, wherein, in the slider, a neighboring section of a portion having the maximum width is fixed to the slider.

7. The pouch of claim 1, wherein, in the slider, a neighboring section of a portion having the maximum width is provided with a unique character.