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(54) **GIRTH TO KEEP SADDLE IN PLACE ON HORSEBACK**

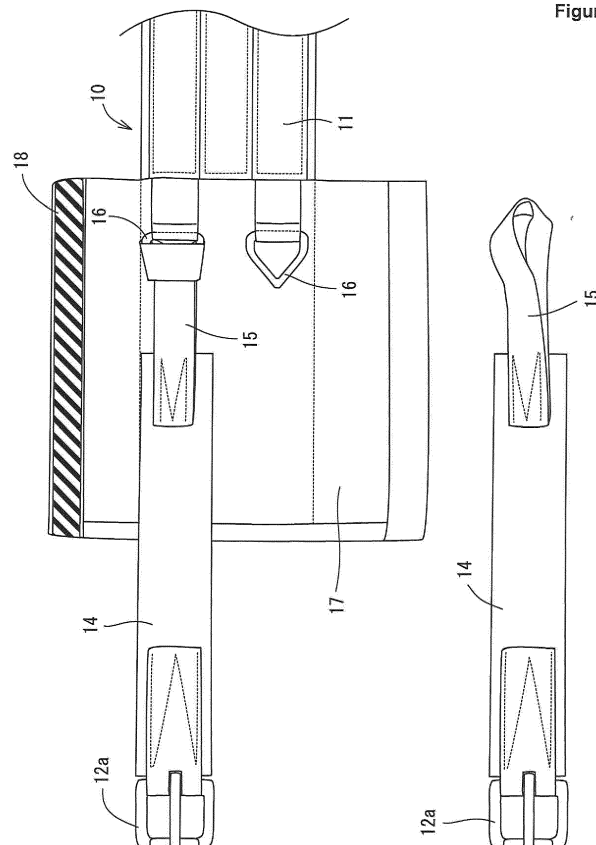
(57) **Aim**

Easier removal / replacement process of the elastic band (14) from the girth (10)

Solution

The Girth (10) design in this invention has the main

belt (11) and buckles (12b) at end of the belt. Both, the main belt (11) and the elastic band (13) with buckles (12a) attached are connected through a loop (15) without a tool enabling easy removal and replacement.



Description

Technical range:

[0001] This invention is about a girth to firmly fixate a saddle on a horseback.

Technical background:

[0002] Conventional girth consists of a main belt and pin buckles on both ends of the belt. Belts (leather straps) hanging off from both sides of a saddle have holes through which the prong of pin buckle connects the girth passing under the belly of the horse to fixate the saddle.

Prior Art:

Patent documents:

[0003]

Patent item 1: Japanese Utility Model Application Laid-Open Publication S57-179900

Patent item 2: US patent specification number 6502376

Overview of the invention:

What the invention tries to solve:

[0004] This sort of girth generally connects the main belt and an elastic tape/band with stitches. Elastic band adjusts the way girth wraps around the belly of the horse making it neither too tight nor loose. In this case, elastic band is directly stitched on to the main belt.

[0005] In case of deterioration, damage or splits due to its repetitive use, the girth requires replacement. As described above, in case of replacement, the conventional girth that stitches the main belt and the elastic belt require a tool such as a pair of scissors or knife to remove the stitches on the elastic band, then stitch it back again. The challenge is that this process typically is time-consuming.

Means of solving this problem:

[0006] The technical objective of this invention is to examine the above-mentioned challenge and improve the design of a girth to fixate a saddle on horseback properly and easily.

[0007] The purpose of the invention is to offer an improvement to replace the elastic band in terms of easiness. Simply put, the improvement is made on girth (10) to keep the saddle in place on horseback (2). This girth (unit) has two parts. One is the main belt (11) with two buckles (12b) attached to one end of the main belt. Another part of the girth is a separate elastic band (14) with two buckles (12a) on one end and another end connect-

ing the main belt (11) through a loop (15), enabling quick removal without a tool.

[0008] In one embodiment, the part with the elastic band (14) with the two buckles (12b) on one end has a woven loop (15), while the main belt (11) has a metal ring (16) (can come in any shapes from triangle to rectangle) through which the loop (15) attached to the elastic band makes a Larks head knot (also known as Lanyard hitch) to connect both parts of the girth without additional tool. Therefore, the elastic part of the girth can function as an adjuster but is also easily detachable and replaceable. Thereby, the woven loop (15) can be twisted or un-twisted woven loop.

15 Effects of the invention:

[0009] As this invention requires no tool to connect the main belt and the elastic belt (band), it takes a simple manual procedure to detach, remove and replace the elastic band without any tool. Therefore, it significantly reduces the time and labour it takes to replace the girth.

Brief explanation of Figures:

25 [0010]

Figure 1: Side View for showing the connection between saddle and one embodiment of the Girth

30 Figure 2: Plan View of the Girth

Figure 3: Plan View of the Girth in the situation of half open Belt cover

Figure 4: Plan View of the Girth in the situation of full open Belt cover

35 Figure 5: Plan View in the situation with one elastic band with buckle jointed

Figure 6: Plan View in the situation with Loop of elastic band being inserted into the triangle ring

40 Figure 7: Plan View in the situation with the elastic band being inserted into the woven tape loop from the buckle side.

Embodiments of the invention:

45 [0011] Detailed explanation of the embodiment according to the figures:

This invention is on the design of a girth (10) to keep a saddle (4) on the back (2) of horse (1) in place. The embodiment of the girth (10) contains the main belt (11), its buckles (12b) on the main belt, ring (16) on the main belt, buckles (12a) on the elastic belt/band (14) and loop (15) on the elastic belt. These altogether are designed to make rigid positioning of saddle (4) on the horseback (2).

50 [0012] As shown in the Figure 1, saddle (4) has the belts/ girth strap (5) on both sides (this Figure shows only one side) which has pin holes (6) and the girth (10) can be attached there by own buckle-pin (13) in order to tighten it around the horse belly (3) and the saddle (4) on the

back (2) of horse (1). Furthermore, the buckles on the main belt (11) are identified as (12b) while the buckles on the elastic belt/ the replaceable part are identified as (12a). More details are provided below.

[0013] The main belt (11) can be in leather, woven fabric or synthetic chemical material. Embodiment of usage shows two buckles on each end of the girth (10), hence two at end of the main belt (11) and two at end of the elastic belt, totalling four pin buckles (12).

[0014] Figures 2-4 show that the main belt (11) splits into two parts. The two split ends have a buckle each (12b). These two buckles are attached to the main belt and essentially remain connected.

[0015] There are two other buckles (12a) on the elastic band (14) connecting to the main belt (11), enabling removal without a tool. In the embodiment, the main belt (11) has two metal rings (which can come in any shapes from triangle to round to rectangle) (16). Also, elastic band (14) has two pin buckles (12a) on one end and another end has woven loop (15).

[0016] As shown in the Figures 5-7, in order to connect the main belt (11) and elastic band (14), woven loop (15) on the elastic band with pin buckles on the other end (12a) makes a Larks head knot (also known as Lanyard hitch) through the metal loop (16) on the main belt (11) and pull the elastic band (14) firmly. By making the Larks head knot, both belts are connected without a tool.

[0017] On a contrary, when the elastic band (14) is to be removed from the main belt (11), all required is to pull out the elastic band (14) together with pin buckles (12a) through the loop (15) off the metal ring (16). This does not require any tool such as scissors or knives to remove the elastic band (14) from the girth.

[0018] Hence, according to the above structure the elastic tape (14) can be easily replaced without any tool and save labour and time.

[0019] As shown in the Figures 5 and 6, in embodiment, each metal ring (16) has a triangle shape, showing the slanted parts exposed. The loop is made in a way that the woven tape is twisted while making the loop and the both ends of the woven tape are stitched together onto the end of the elastic band (14). However, the woven loop can also be an un-twisted loop. By making knot with the loop (15) through the metal ring (16), it makes a neck-tie alike shape. The loop (15) and the metal ring are connected simple and neat.

[0020] In addition, as the Figures 2-7 show, in the embodiment, the main belt (11) has a girth belt cover (17) covering the elastic band (14) including loop (15) and each metal ring (16). The girth belt cover (17) can be folded in shape of a flat tube wrapping the elastic band (14). Each side of the cover has a velcro-fastener one inside (18) and another outside (19) stitched. By engaging the velcro-fastener (18 and 19), the cover wraps the elastic band (14) making a shape of falt tube. The belt cover (17) also has a function as a protection for the loop (15) as well all elastic tapes (14) and metal rings (16).

[0021] Each structure and design from this invention

is not only applicable to this embodiment but also useful in various purposes. For example, the metal ring (16) which the loop (15) wraps around may also be substituted with tools such as zip-fastener, velcro-fastener or buttons. In this case, the girth (10) needs to be strong enough to keep it in place on the horseback and easy enough to remove without a tool.

[0022] The both ends of the girth (10) i.e. main belt (11) and the elastic band (14) have buckles (12a and 12b) enabling an easy disconnect. The buckle does not have to be a metal but could be a buckle that can be engaged by friction. There can be one or even more than three buckles at end of the main belt (11).

15 List of numerals in Figures

[0023]

1	Horse
20 2	Horse Back
3	Belly
4	Saddle
5	Belts /Girth Strap
6	Holes
25 10	Girth
11	Main Belt
12(12a, 12b)	Pin Buckle as Buckle
13	Prong
14	Elastic belt
30 15	Loop
16	Ring
17	Girth belt cover
18, 19	Fastener pair

35 Claims

1. Girth (10) to keep the saddle in place on a horseback (2), whereby the girth (10) has two parts and one part is the main belt (11) with two buckles (12b) attached to one end of the main belt (11), and another part of the girth (10) is a separate elastic band (14) with two buckles (12a) on one end and another end connecting the main belt (11) through a loop (15), enabling quick removal without a tool.
2. Girth according to claim 1, whereby the part with the elastic band (14) with the two buckles (12a) on one end has a woven loop tape (15), while the main belt (11) has a metal ring (16) through which the loop (15) attached to the elastic band (14) makes a Larks head knot (also known as Lanyard hitch) to connect both parts of the girth (10) without additional tool.
3. Girth according to claim 2, whereby the metal ring (16) can come in any shapes from triangle to rectangle.

4. Girth according to claim 2 or 3, whereby the woven loop tape (15) is a twisted woven loop tape.

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Figure 1

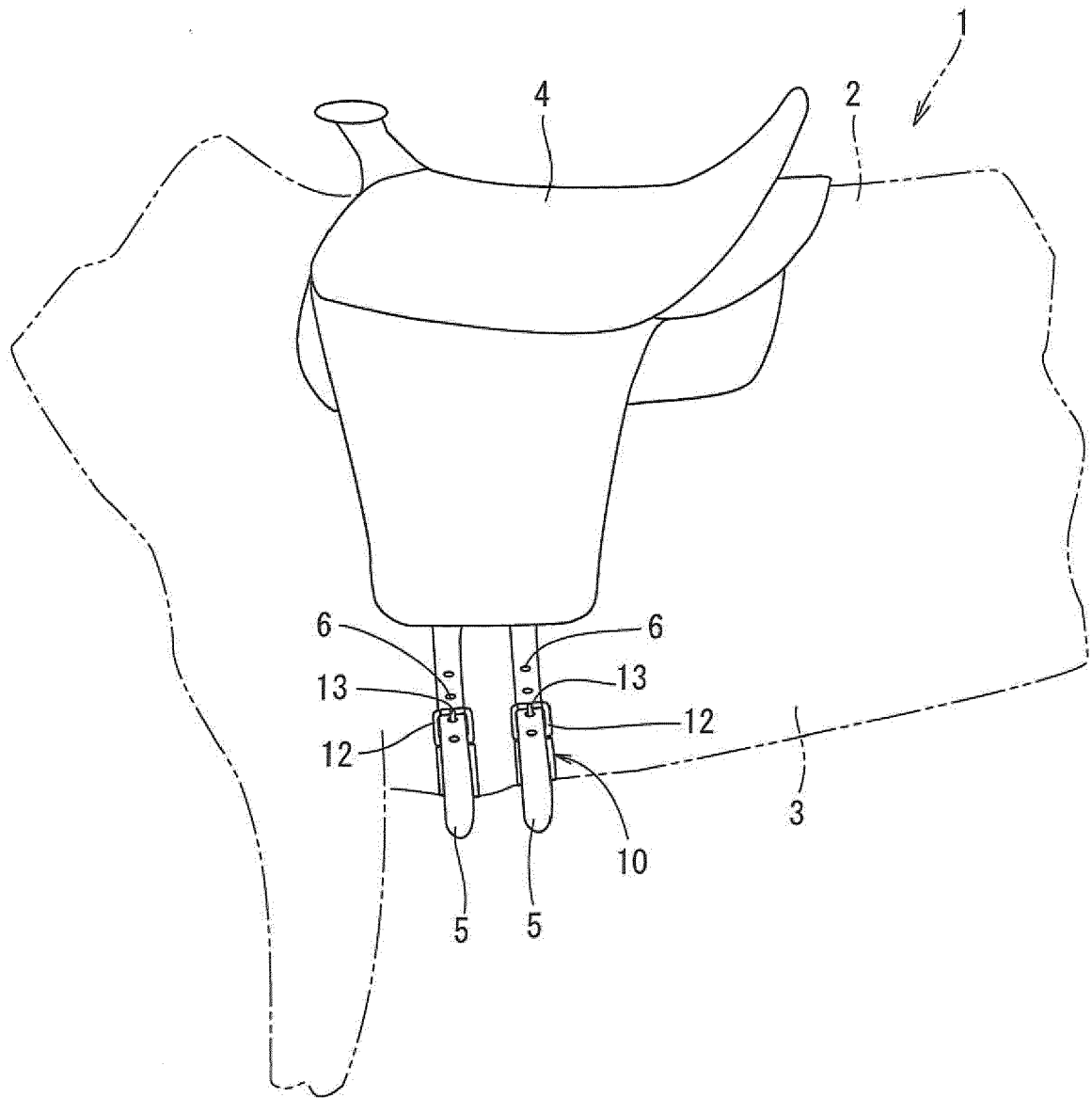


Figure 2

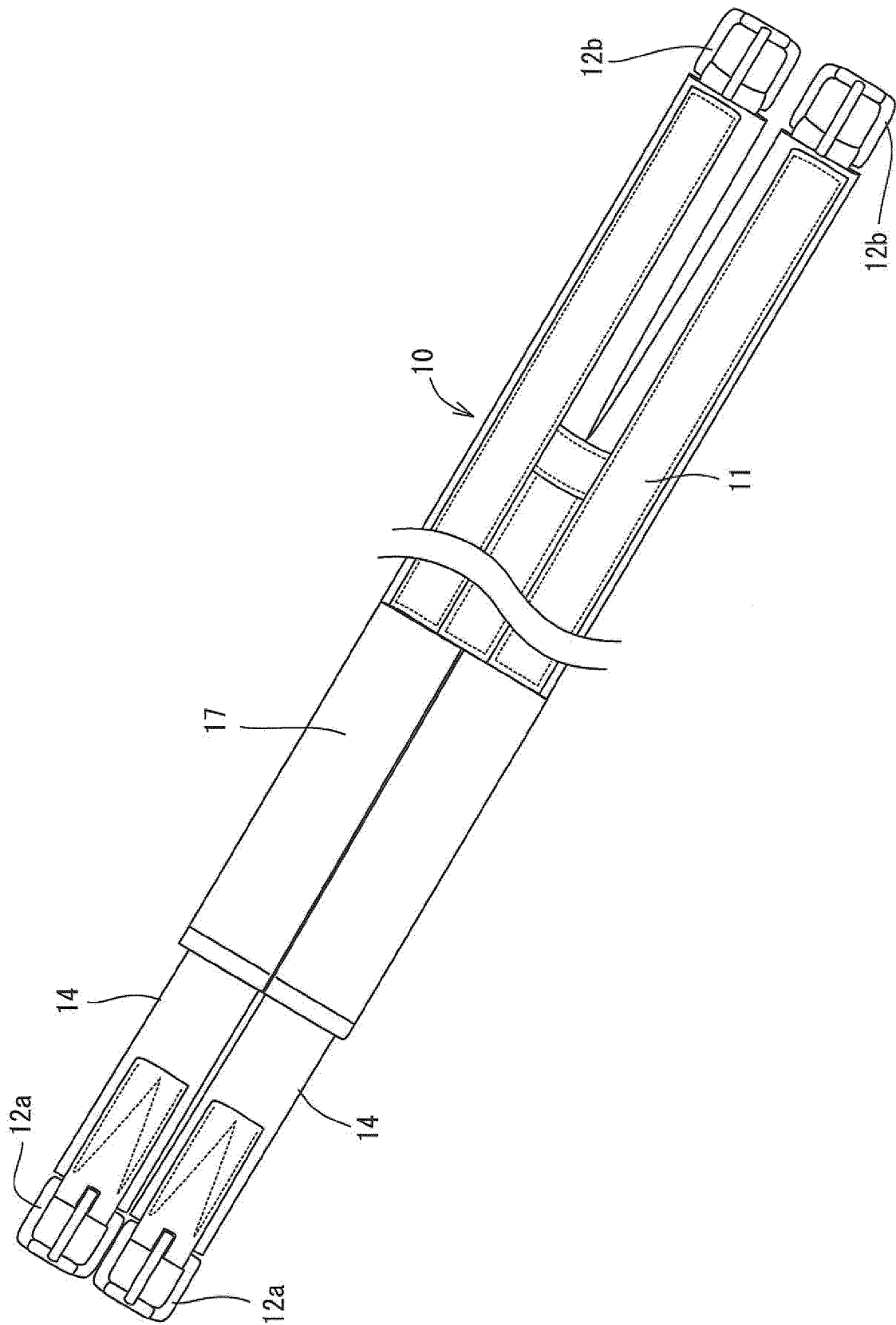


Figure 3

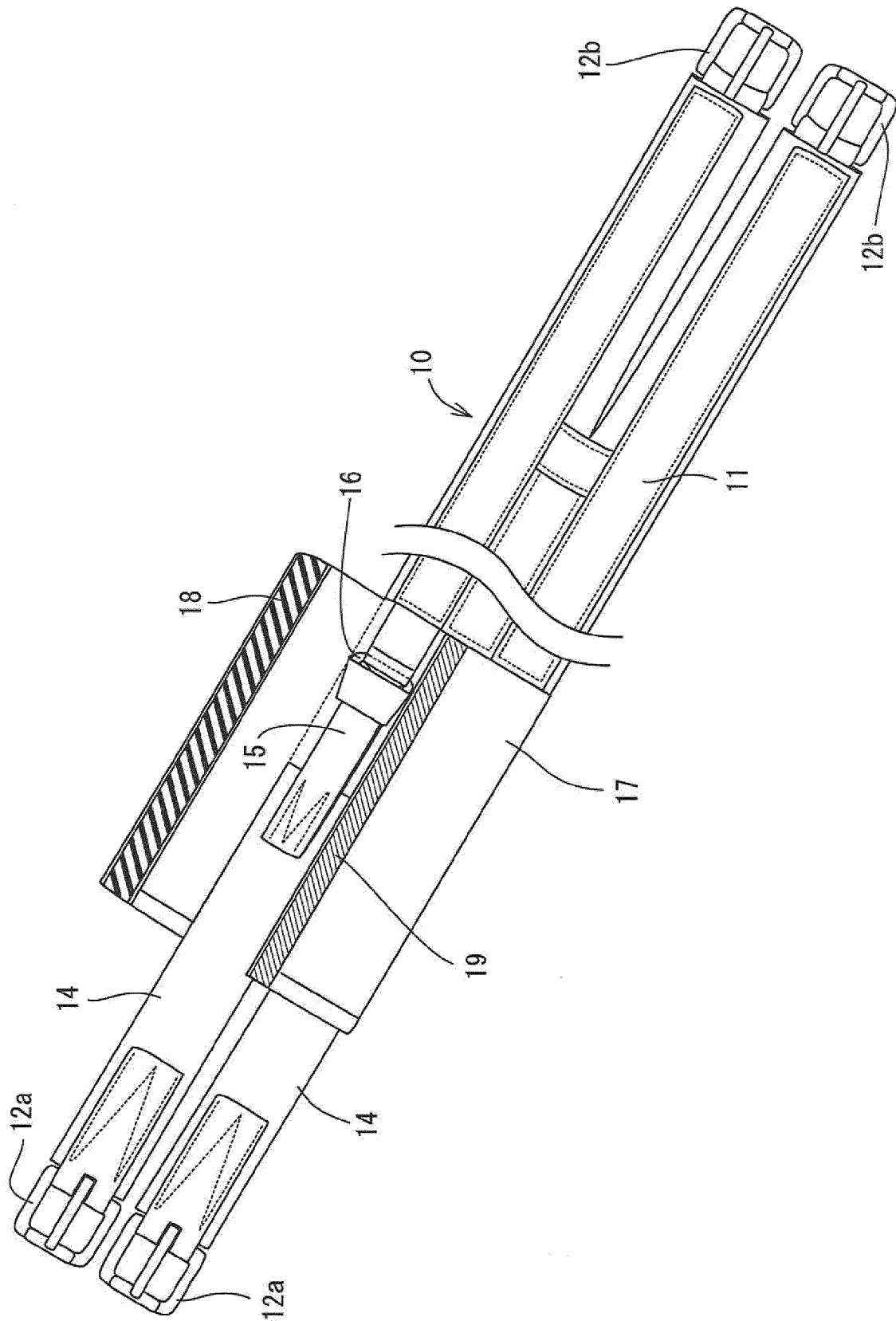


Figure 4

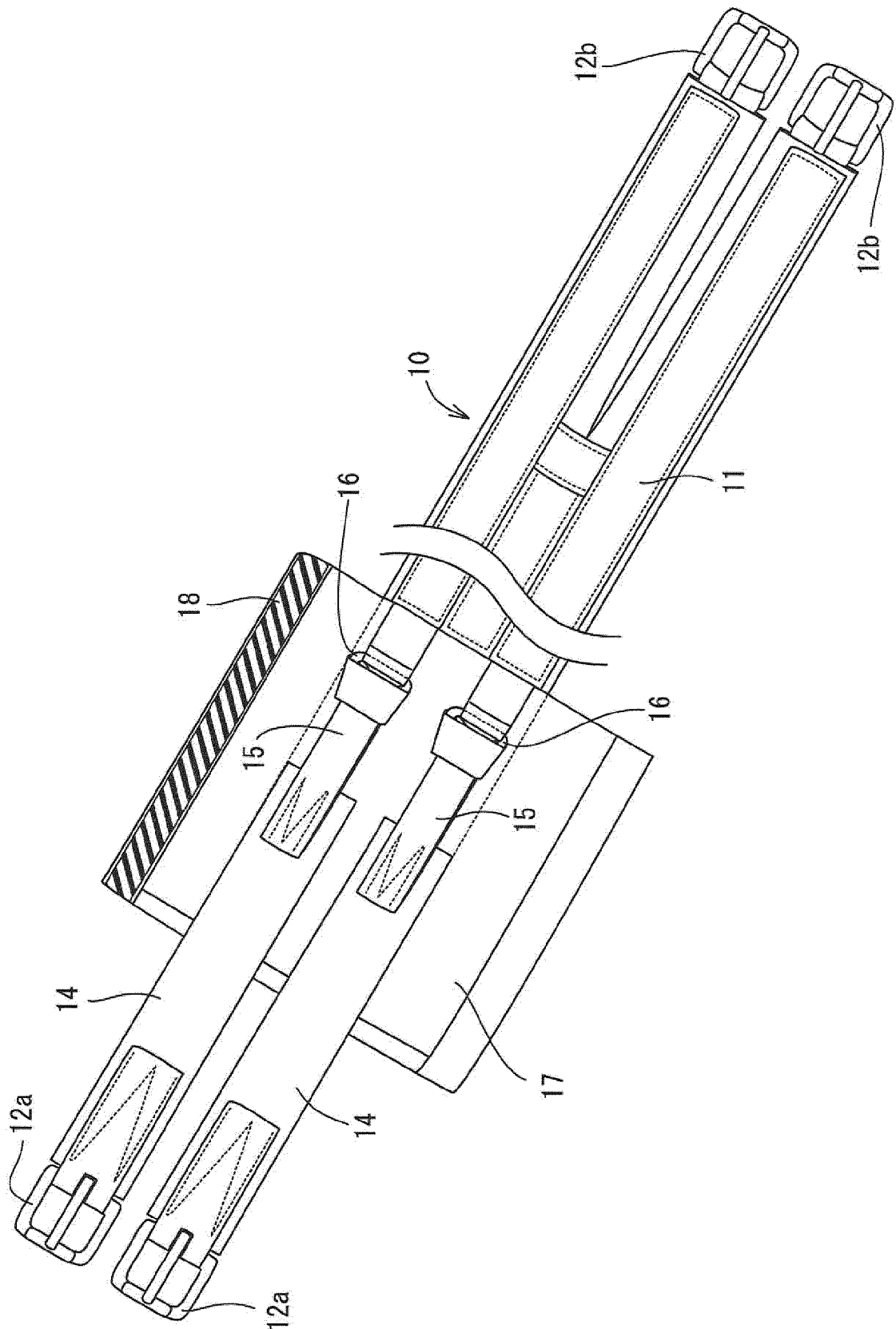


Figure 5

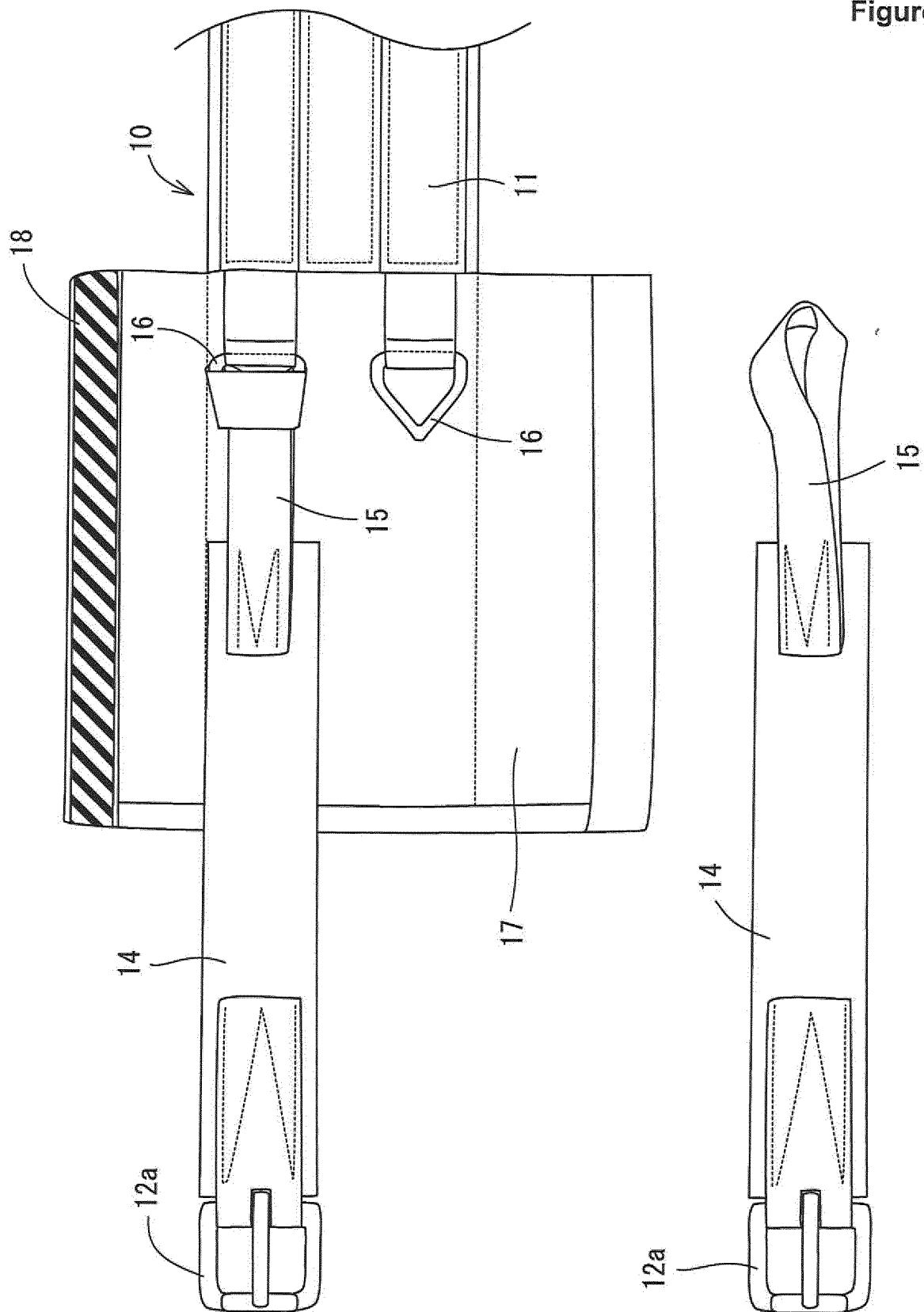


Figure 6

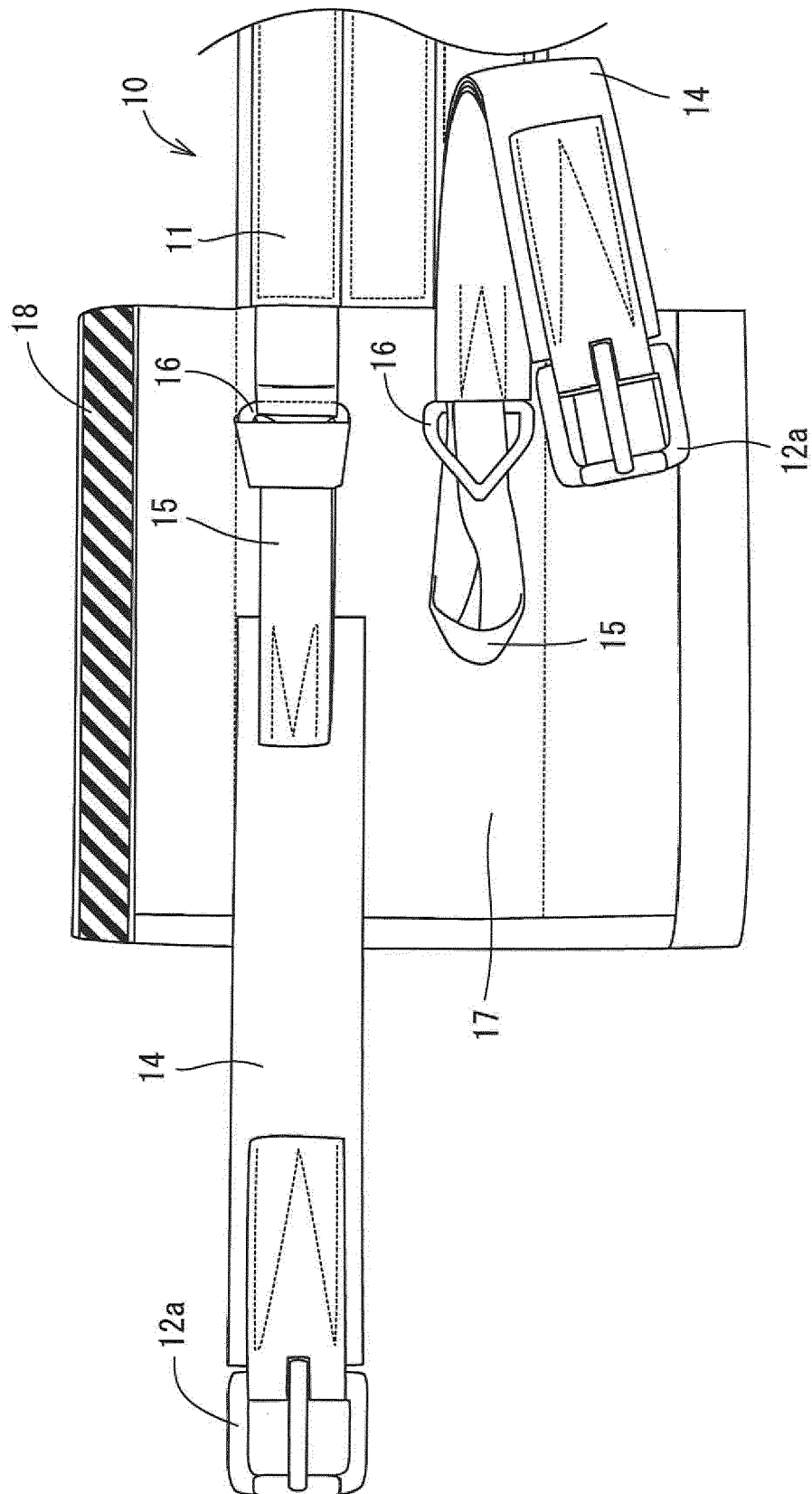
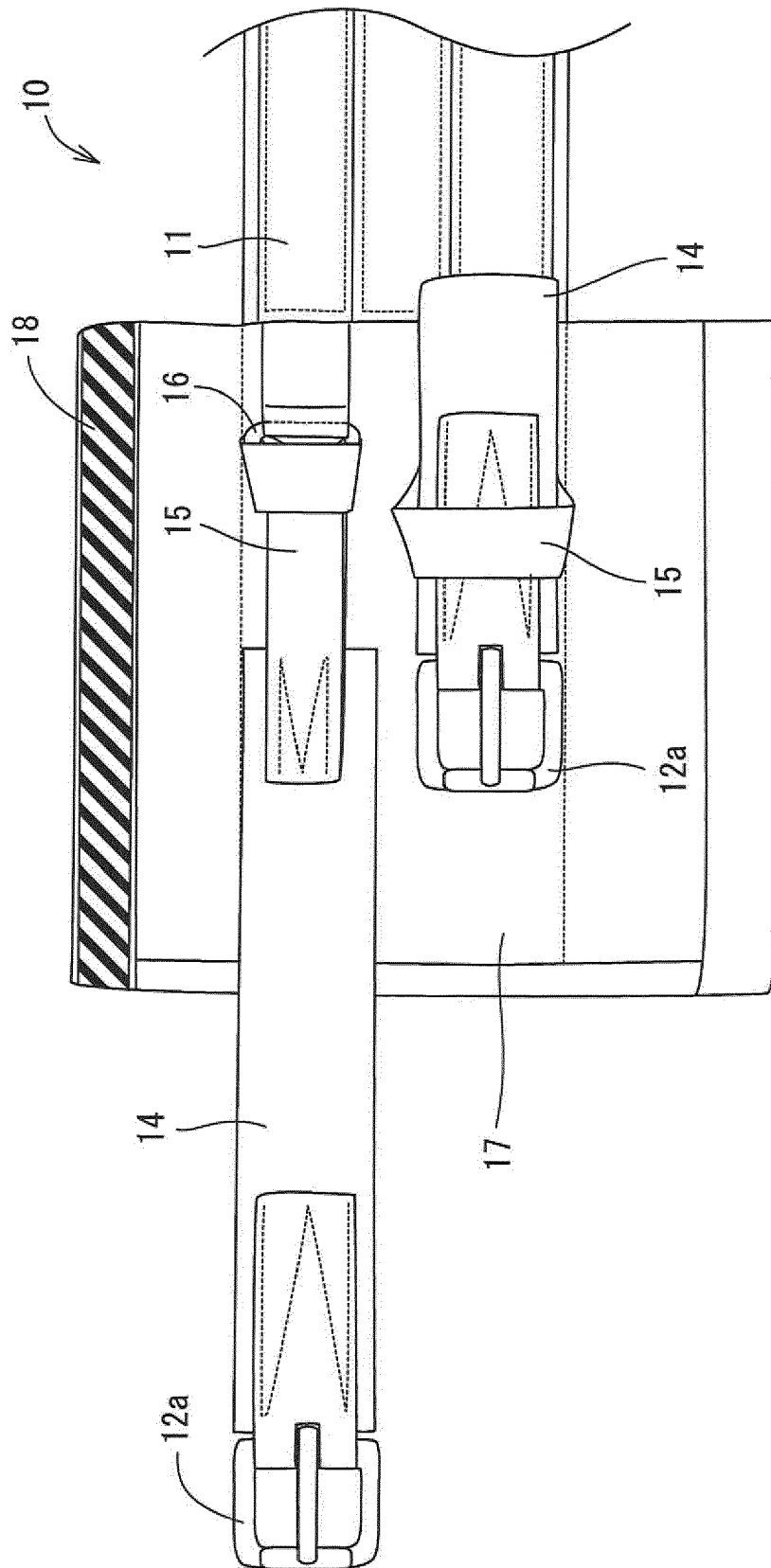


Figure 7





EUROPEAN SEARCH REPORT

Application Number
EP 19 15 9152

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 2 166 035 A (COTTAGE IND) 30 April 1986 (1986-04-30) * abstract * * page 1, line 103 - page 5, line 4 * * figures 1-3 *	1-4	INV. B68C1/14
A	US 2013/291495 A1 (COTE DEBORAH L [US] ET AL) 7 November 2013 (2013-11-07) * abstract * * figures 1-8 * * claims 1,2 *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			B68C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 August 2019	Examiner Espeel, Els
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 19 15 9152

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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14-08-2019

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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