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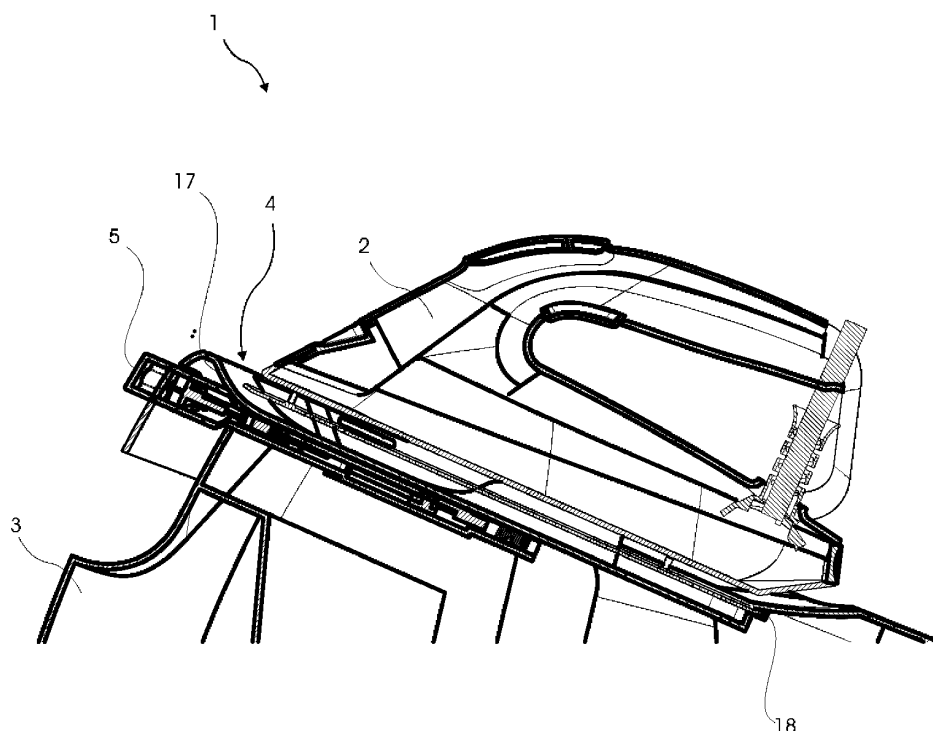
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(54) **AN IRON COMPRISING A LOCKING MECHANISM**

(57) The present invention relates to an iron (1) comprising a body (2); a tank (3) which is filled with water so as to generate steam; a housing (4) which is provided on the tank (3) and wherein the body (2) is placed; and a

locking mechanism (5) which is provided on the housing (4) and which enables the body (2) to be locked onto the tank (3).

Figure 1



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Description

[0001] The present invention relates to a steam generator iron comprising a locking mechanism.

[0002] The steam generator iron comprises a tank with a large volume suitable for adding water by the user. The water filled in by the user is converted into steam by the steam tank and transferred to the individual component for ironing. By means of the ability of the steam tank to produce large volumes of steam, a warmer and denser amount of steam is delivered to the clothes via the individual component. Thus, the ironing process is realized more efficiently. Cables for transmitting steam and electricity are provided between the steam tank and the individual component. The individual component is placed onto the steam tank. However, when the iron is desired to be carried by the user, the individual component and the steam water must be carried separately. While being carried, the individual component may sometimes fall. This causes the cables between the steam tank and the individual component to be damaged and put the user safety at risk. The state of the art locking mechanisms enable the individual component to be fixed onto the steam tank from the front and rear sides. However, when the individual component is fixed onto the steam tank from the front and rear sides, the individual component may move sideways, thus eliminating the ability of the users to carry the same with one hand.

[0003] In the state of the Chinese Patent No. CN103361952, an iron is disclosed, comprising locking members at the sides thereof for fixing the individual component onto the steam tank.

[0004] The aim of the present invention is the realization of an iron where ease of use is provided.

[0005] The iron realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, comprises a body; a tank which generates steam; a housing which is provided on the tank; a cavity which is provided on the rear side of the housing; and a locking mechanism which enables the body to be fixed onto the tank. By means of the locking mechanism, the body is fixed onto the tank, enabling the same to be carried more easily. Thus, use safety is improved and ease of use is provided.

[0006] The iron of the present invention a locking mechanism having an actuation member which is actuated by the user, a movement member which is connected to the actuation member, at least two locking arms which enable the body to be fixed onto the tank, a connection member which is disposed between the locking arm and the movement member, and a spring which is connected to the movement member. The actuation member is actuated by the user. Thus, the movement member moves, and the movement is transmitted to the locking arms by means of the connection member. By means of the locking arms engaging with the body, the body is fixed onto the tank.

[0007] In an embodiment of the present invention, the

iron comprises a locking member which is arranged on the movement member. By means of the locking member, the locking arms are prevented from moving without being controlled by the user. Thus, the safety of the user is ensured.

[0008] In an embodiment of the present invention, the iron comprises the locking mechanism having a first position wherein the locking arms engage with the sides of the body and a second position wherein the body is released. When the locking mechanism is in the first position, the body is fixed onto the tank. Thus, the body can be used for easy carrying. When the locking mechanism is in the second position, the body can be separated from the steam tank.

[0009] In an embodiment of the present invention, the iron comprises the movement member having a spring housing which engages with the spring when the locking mechanism is in the first position. As the spring engages with the spring housing, the locking mechanism is fixed in the first position and cannot be shifted to the second position without being controlled by the user. Thus, the safety of the user is ensured.

[0010] In an embodiment of the present invention, the iron comprises a protrusion which is provided on the movement member and a channel through which the protrusion moves. When the locking mechanism is in the first position and the second position, the protrusion is positioned at the points farthest from each other on the channel. When the protrusion is on one end of the channel, the locking mechanism is in the first position, and when the protrusion is at the opposite end, the locking member is in the second position.

[0011] In an embodiment of the present invention, the iron comprises the channel which is almost quadrilateral. By means of the protrusion moving through the channel, the locking mechanism moves between the first position and the second position.

[0012] In an embodiment of the present invention, the iron comprises a claw which is provided on the movement member and a recess which engages with the claw. When the actuation member is actuated by the user, the movement member moves and the claw engages with the recess. Thus, the locking arms are enabled to be fixed onto the body.

[0013] In an embodiment of the present invention, the iron comprises a protective barrier which almost completely surrounds the housing. By means of the barrier, when the soleplate of the body is hot, the user is prevented from contacting the same.

[0014] By means of the present invention, a steam generator iron is realized, which can be carried only by being held by the body.

[0015] An iron realized in order to attain the aim of the present invention is illustrated in the attached figures, where:

Figure 1 - is the sideways view of the iron.

Figure 2 - is the bottom view of the iron when the

movement mechanism is in the second position.

Figure 3 - is the bottom view of the iron when the movement mechanism is in the first position.

Figure 4 - is the view of the spring and the spring housing on the movement mechanism.

Figure 5 - is the view of the protrusion and the channel on the movement mechanism.

Figure 6 - is the view of the claw and the recess on the movement mechanism.

[0016] The elements illustrated in the figures are numbered as follows:

1. Iron
2. Body
3. Tank
4. Housing
5. Locking mechanism
6. Actuation member
7. Movement member
8. Locking arm
9. Connection member
10. Spring
11. Locking member
12. Spring housing
13. Protrusion
14. Channel
15. Claw
16. Recess
17. Protective barrier
18. Cavity

[0017] The iron (1) comprises a body (2); a tank (3) which is filled with water so as to generate steam; a housing (4) which is provided on the tank (3) and wherein the body (2) is placed; a cavity (18) which is provided at the rear side of the housing (4) and which is used for locking the rear side of the body (2); and a locking mechanism (5) which is provided on the housing (4) and which enables the body (2) to be locked onto the tank (3). The ironing process is realized by means of the body (2). The body (2) is placed into the housing (4) provided on the tank (3). By means of the cavity (18), the rear side of the body (2) is fixed onto the tank (3). While being carried, the body (2) is fixed onto the tank (3) by means of the locking mechanism (5).

[0018] The iron (1) of the present invention comprises the locking mechanism (5) having an actuation member (6) which is actuated by the user, a movement member (7) with one end connected to the actuation member (6) and the other end extending towards the housing (4), at least two locking arms (8) which enable the soleplate of the body (2) to be fixed, a connection member (9) with one end connected to the movement member (7) and the other end to the locking arm (8), which enables the movement of the movement member (7) to be transferred to the locking arms (8), and at least one spring (10) which is connected to the movement member (7). The actuation

member (6) is actuated by the user. By means of the movement of the actuation member (6), the movement member (7) extending into the housing (4) also moves. The movement of the movement member (7) is transferred to the connection member (9). Thus, the locking arms (8) move towards the body (2) so as to provide the locking.

[0019] In an embodiment of the present invention, the iron (1) comprises the locking mechanism (5) having a locking member (11) which is provided on the movement member (7) and which prevents the locking arms (8) from moving without being controlled by the user. By means of the locking member (11), the locking arms (8) cannot be opened without being controlled by the user. Thus, the safety of the user is ensured.

[0020] In an embodiment of the present invention, the iron (1) comprises the locking mechanism (5) having a first position wherein the locking arms (8) engage with the sides of the body (2) and a second position wherein the locking arms (8) release the sides of the body (2). The locking arms (8) hold the body (2) in the first position. Thus, the body (2) is enabled to be fixed onto the tank (3). When the locking mechanism (5) is in the second position, the locking arms (8) are released from the body (2). The body (2) gains the ability to move and the ironing process can be performed.

[0021] In an embodiment of the present invention, the iron (1) comprises the movement member (7) having a spring housing (12) which engages with the spring (10) when the locking mechanism (5) is in the first position. By means of the spring (10) engaging with the spring housing (12), the locking mechanism (5) is prevented from moving between the first position and the second position. Thus, the safety of the user is ensured.

[0022] In an embodiment of the present invention, the iron (1) comprises a protrusion (13) which is provided on the movement member (7), a channel (14) through which the protrusion (13) moves, and the locking mechanism (5) which enables the locking arms (8) to be fixed by means of the protrusion (13) positioned at the two farthest points of the channel (14) from each other when the locking mechanism (5) is in the first position and the second position. While the protrusion (13) moves through the channel (14), the locking mechanism (5) moves between the first position and the second position.

[0023] In an embodiment of the present invention, the iron (1) comprises the channel (14) which is almost quadrilateral. When the protrusion (13) completes a complete tour on the channel (14), the locking mechanism (15) shifts to the first position and the second position.

[0024] In an embodiment of the present invention, the iron (1) comprises a claw (15) which is provided on the movement member (7), a recess (16) which is positioned so as to align with the claw (15), and the locking mechanism (5) which enables the locking arms (8) to be fixed as the claw (15) engages with the recess (16) when the locking mechanism (5) is in the first position. When the locking mechanism (5) is in the first position, the claw

(15) engages with the recess (16) and the locking mechanism (5) cannot shift between the first position and the second position. Thus, the safety of the user is ensured.

[0025] In an embodiment of the present invention, the iron (1) comprises the tank (3) having a protective barrier (17) which almost completely surrounds the housing (4). By means of the protective barrier (17), when the soleplate of the iron (1) is hot, the user is prevented from contacting the same.

[0026] By means of the present invention, an iron (1) is realized, comprising a locking mechanism (5) which enables the body (2) to be peripherally fixed onto the tank (3). Thus, the user is enabled to easily carry the iron (1), providing user safety.

Claims

1. An iron (1) **comprising** a body (2); a tank (3) which is filled with water so as to generate steam; a housing (4) which is provided on the tank (3) and wherein the body (2) is placed; a cavity (18) which is provided at the rear side of the housing (4) and which is used for locking the rear side of the body (2); and a locking mechanism (5) which is provided on the housing (4) and which enables the body (2) to be locked onto the tank (3), **characterized by** the locking mechanism (5) having an actuation member (6) which is actuated by the user, a movement member (7) with one end connected to the actuation member (6) and the other end extending towards the housing (4), at least two locking arms (8) which enable the soleplate of the body (2) to be fixed, a connection member (9) with one end connected to the movement member (7) and the other end to the locking arm (8), which enables the movement of the movement member (7) to be transferred to the locking arms (8), and at least one spring (10) which is connected to the movement member (7).
2. An iron (1) as in Claim 1, **characterized by** the locking mechanism (5) having a locking member (11) which is provided on the movement member (7) and which prevents the locking arms (8) from moving without being controlled by the user.
3. An iron (1) as in any one of Claim 1 or Claim 2, **characterized by** the locking mechanism (5) having a first position wherein the locking arms (8) engage with the sides of the body (2) and a second position wherein the locking arms (8) release the sides of the body (2).
4. An iron (1) as in Claim 3, **characterized by** the movement member (7) having a spring housing (12) which engages with the spring (10) when the locking mechanism (5) is in the first position.

5. An iron (1) as in any one of Claim 2 and Claim 4, **characterized by** a protrusion (13) which is provided on the movement member (7), a channel (14) through which the protrusion (13) moves, and the locking mechanism (5) which enables the locking arms (8) to be fixed by means of the protrusion (13) positioned at the two farthest points of the channel (14) from each other when the locking mechanism (5) is in the first position and the second position.
6. An iron (1) as in Claim 5, **characterized by** the channel (14) which is almost quadrilateral.
7. An iron (1) as in any one of Claim 1 to Claim 6, **characterized by** a claw (15) which is provided on the movement member (7), a recess (16) which is positioned so as to align with the claw (15), and the locking mechanism (5) which enables the locking arms (8) to be fixed as the claw (15) engages with the recess (6) when the locking mechanism (5) is in the first position.
8. An iron (1) as in any one of the above claims, **characterized by** the tank (3) having a protective barrier (17) which almost completely surrounds the housing (4).

Figure 1

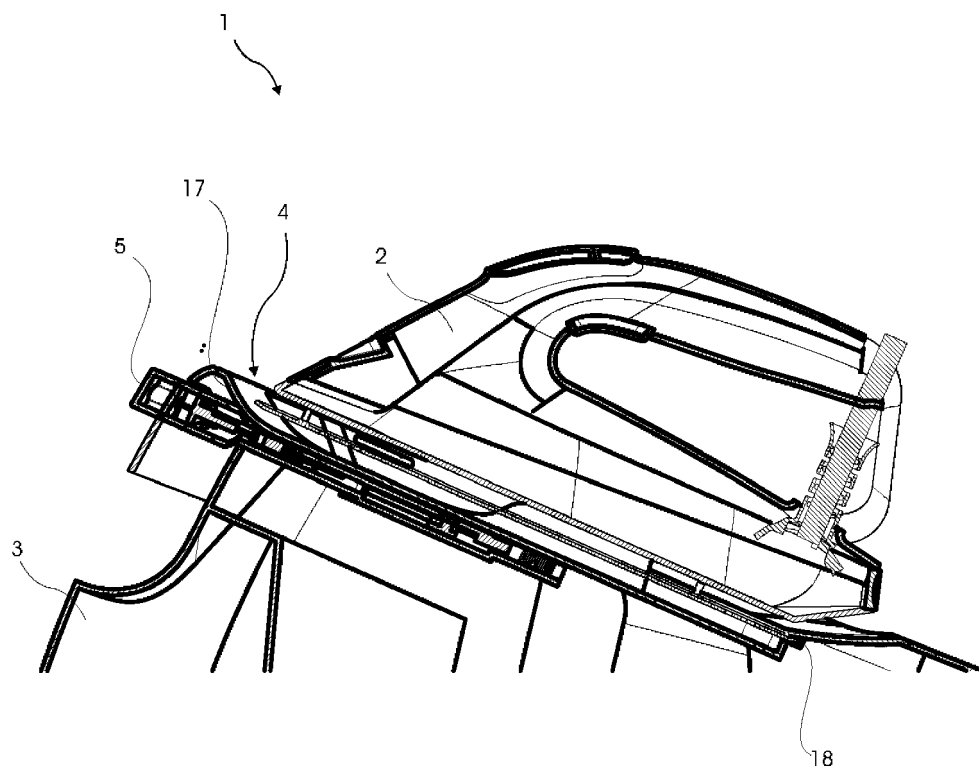


Figure 2

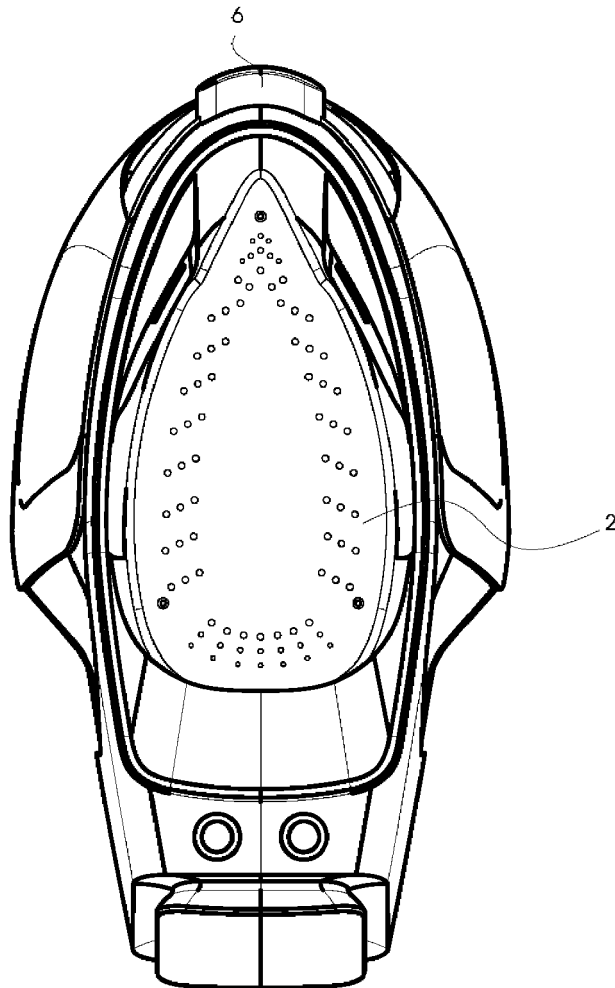


Figure 3

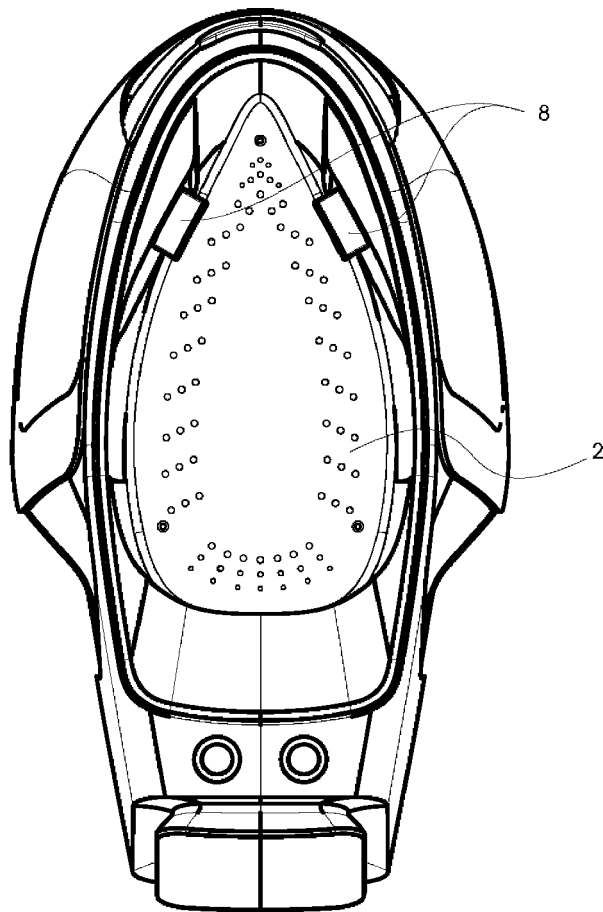


Figure 4

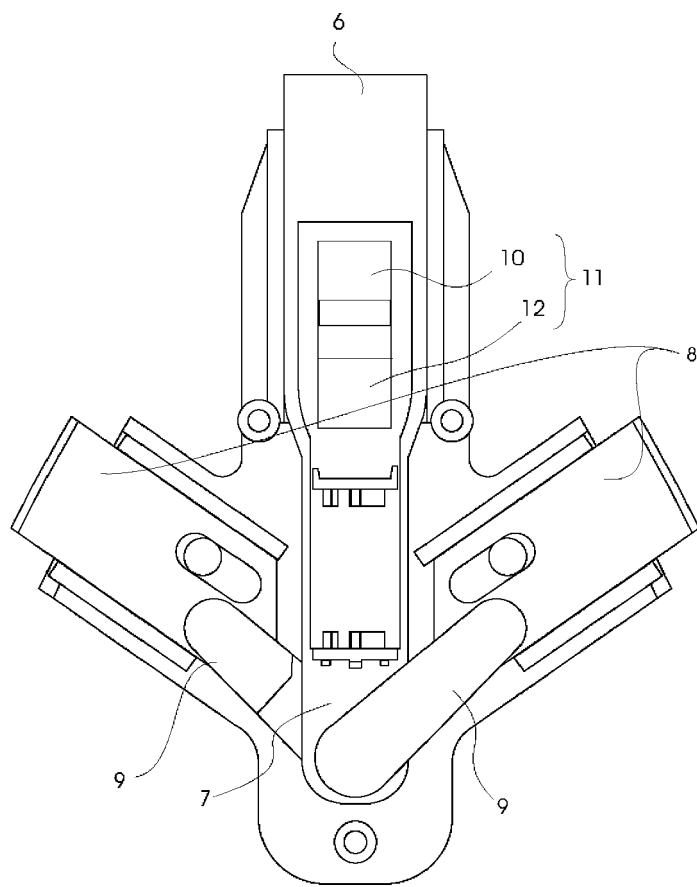


Figure 5

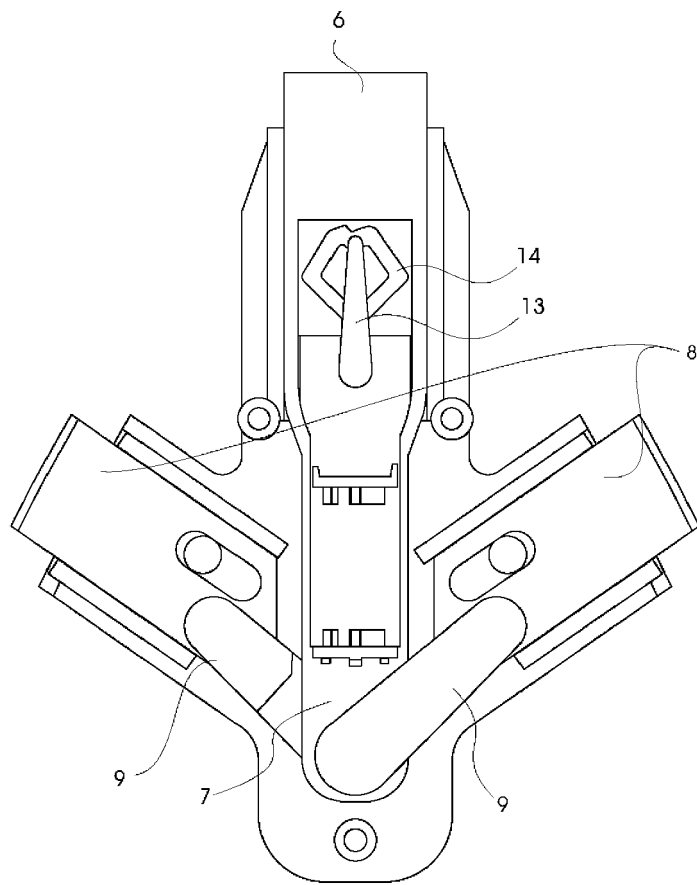
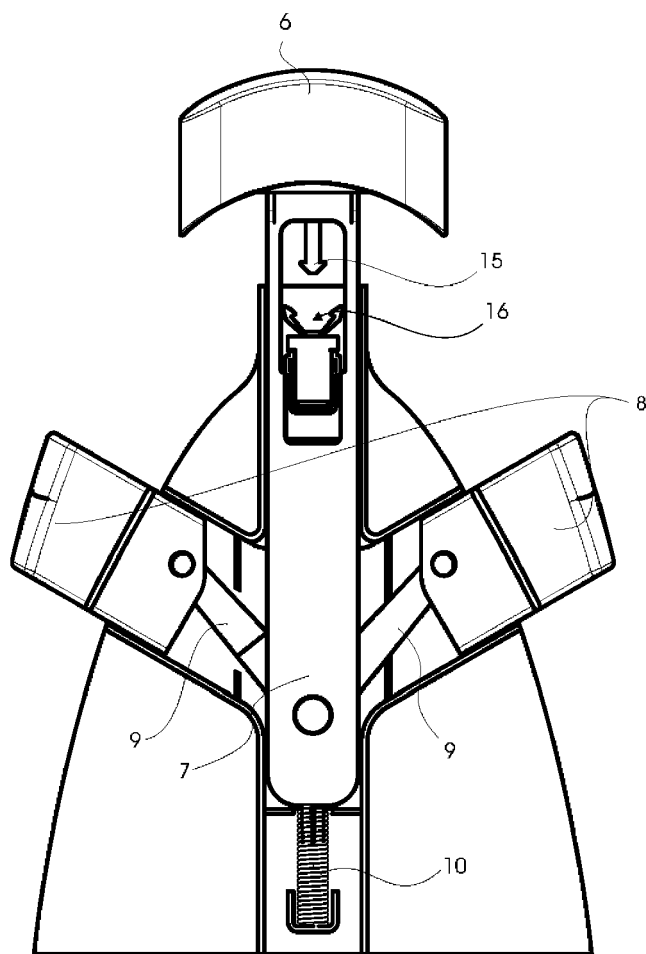


Figure 6





EUROPEAN SEARCH REPORT

Application Number
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			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 October 2021	Examiner Sangiorgi, Massimo
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
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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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