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(54) **A LAUNDRY WASHING AND/OR DRYING MACHINE COMPRISING A KICKPLATE**

(57) The present invention relates to a laundry washing and/or drying machine (1) comprising a main body (2); a drum which is disposed in the main body (2) and wherein the laundry is washed and/or dried; a volume which is defined in the main body (2) and which accom-

modates at least one component which enables the washing and/or drying process to be realized; and a kickplate (3) which is placed onto the main body (2) so as to be opened/closed in order to allow or prevent access to the interior of the volume.

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Description

[0001] The present invention relates to a laundry washing and/or drying machine comprising a kickplate.

[0002] Laundry washers and/or dryers generally comprise a body, a drum which is disposed in the body and wherein the laundry is washed and/or dried and operational components such as drying unit, filter, etc. which enable the washing and/or drying process to be realized and the machine to be operated. For example, some components such as drying unit, fan cooling the drying unit, etc. are placed preferably into a volume defined in a region close to the base of the machine so as to ensure the efficient use of the volume of the body. In order to prevent said components from being seen from outside and protect the same against possible external dangers, said volume is preferably covered at the front section of the body preferably by means of a plate which is referred to as kickplate. Said kickplate is mounted to the body so as to be opened/closed and for example, if maintenance is desired to be performed in case of a malfunction of said components, the kickplate is opened or removed and the interior of the volume and thus, said components are accessed.

[0003] Today, the kickplates used in the laundry washing and/or drying machines are preferably mounted onto the body so as to be opened/closed to allow or prevent access to the interior of said volume. In some of the state of the art embodiments, a handle is provided on the kickplate and when said volume is needed to be accessed, the user pulls said handle and opens the kickplate. However, since the handle creates a protrusion on the surface of the kickplate which can be seen from outside, the visual quality of the machine deteriorates. Furthermore, since the kickplate is mounted to a region of the body which is close to the base, the users may sometimes hit the handle which extends outwards from the surface of the kickplate, causing the user or the handle to be damaged.

[0004] In another state of the art embodiment, the kickplate is connected to the body by means of locking members which enable the kickplate to be opened by rotating around a vertical axis when a force with a certain magnitude is applied onto the kickplate. However, since the users who want to access said volume covered by means of the kickplate have to apply force in order to open the kickplate, this situation mostly causes user dissatisfaction. Furthermore, the users cannot determine the opening speed of the kickplate. Moreover, the machine loses symmetry in terms of appearance when the kickplate which opens by rotating around a vertical axis is in the open position, causing user dissatisfaction in terms of visual perception.

[0005] In the state of the art International Patent Document No. WO2017/194090, a household appliance comprising an improved kickplate system is disclosed.

[0006] The aim of the present invention is the realization of a laundry washing and/or drying machine comprising a kickplate with improved visual quality.

[0007] The laundry washing and/or drying machine realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, comprises a kickplate which is placed onto the body so as to be opened/closed in order to allow or prevent access to the volume preferably defined near the base section of the main body wherein at least one component enabling the laundry washing and/or drying process to be performed is accommodated and which has a kickplate body defining an outer surface visible from the outside and at least one handle placed onto the kickplate body so as to be moved between a first position wherein the same does not create a protrusion or recess on the outer surface and a second position wherein the same creates a protrusion by extending outwards from the outer surface. In the preferred embodiment of the present invention, the outer surface of the kickplate body visible when viewed from the outside of the machine is preferably a smooth surface. By means of the handle which does not create a protrusion or recess on said outer surface when not in use, in other words when the volume defined in the main body is not required to be reached, the continuity of the outer surface is not deteriorated in such cases and the outer surface can be almost completely smooth. Thus, the visual quality of the kickplate and hence, of the laundry washing and/or drying machine onto which the kickplate is mounted is improved, ensuring user satisfaction. For example, when the user needs to access the interior of the volume if at least one component accommodated in the volume malfunctions, he/she shifts the handle from the first position to the second position wherein the same creates a protrusion on the outer surface. When the handle is shifted to the second position, the user grasps the handle and pulls the handle to open the kickplate. Thus, the user can easily reach the component accommodated in the volume.

[0008] In an embodiment of the present invention, the kickplate body comprises at least one chamber which accommodates the handle which is in the first position. The handle is accommodated in said chamber when not in use, in other words when the volume defined in the main body is not required to be reached, and thus, the handle is protected from external factors such as impacts and the handle which is in the first position is prevented from creating a protrusion or recess on the outer surface and deteriorating the integrity of the surface.

[0009] In an embodiment of the present invention, the kickplate comprises locking members which are configured to keep the handle in the first position so as to prevent the same from moving. The locking members are configured to keep the handle in the first position until a force with a certain magnitude is applied onto the handle and to release the handle when said force is applied, enabling the handle to move from first position to the second position. Thus, the handle which is in the first position is prevented from being moved to the second position unintentionally.

[0010] In an embodiment of the present invention, the

locking members comprise a connection member which is provided on the handle, and at least one holder which is provided in the chamber so as to be aligned with the connection member and which is configured to fixedly hold the connection member until a force with a certain magnitude is applied onto the handle and to release the connection member so as to allow the handle to move towards the second position when a force with a certain magnitude is applied onto the handle. In this embodiment, when force is applied onto the handle which is in the first position, the connection member moves forward so as to be flexibly separated from the holder, and as a result of said movement, is freed from the holder, allowing the handle to move towards the second position. In other words, the connection member and the holder provide preferably a push-pull type of connection.

[0011] In an embodiment of the present invention, the connection member comprises an extension which is connected to the handle at one end and which extends almost linearly starting from said end, and a head which is provided on the end of the extension not connected to the handle and which has a width greater than that of the extension, and the holder comprises at least two wings which can flex to a certain extent by means of the force applied to the handle and transferred thereon via the head. In this embodiment, when the handle is in the first position, the wings tightly grasp the head and thus, enable the head, hence the extension, and hence the handle to be kept fixed until a force with a certain magnitude is applied onto the handle. When said force is applied to the handle which is in the first position, the extension moves almost linearly to a certain extent, and the head is flexibly separated from the wings as a result of this movement. Consequently, by means of the separation of the head from the wings, the handle shifts from the first position to the second position. When a force is applied onto the handle which is in the second position, depending on the applied force, the handle and hence the connection member move linearly towards the holder, and as the head contacts the wings, the force applied to the handle is transferred to the wings via the head. Thus, the wings flex to a certain extent and grasp the head. Consequently, the handle is enabled to be shifted to the first position.

[0012] By means of the present invention, the visual quality of the laundry washing and/or drying machine is improved and consequently, user satisfaction is provided by means of the handle which enables the kickplate to be opened/closed by being controlled by the user and which does not affect the integrity of the outer surface of the kickplate body visible from the outside when the volume covered by the kickplate is not required to be accessed.

[0013] The laundry washing and/or drying machine realized in order to attain the aim of the present invention is illustrated in the attached figures, where:

Figure 1 - is the partial perspective view of the kick-

plate region of the laundry washing and/or drying machine of the present invention when the handle is in a first position.

Figure 2 - is the partial perspective view of the kickplate region of the laundry washing and/or drying machine of the present invention when the handle is in a second position.

Figure 3 - is the sideways partial cross-sectional view of the kickplate region of the laundry washing and/or drying machine of the present invention when the handle is in a first position.

Figure 4 - is the partial cross-sectional view of the kickplate region of the laundry washing and/or drying machine of the present invention when the handle is in a second position.

Figure 5 - is the partial perspective view of the kickplate region of the laundry washing and/or drying machine of the present invention when the handle is in a second position.

Figure 6 - is the partial perspective view of the kickplate region of the laundry washing and/or drying machine of the present invention when the handle is in a first position.

[0014] The elements illustrated in the figures are numbered as follows:

1. Laundry washing and/or drying machine
2. Main body
3. Kickplate
4. Kickplate body
5. Handle
6. Chamber
7. Connection member
8. Holder
9. Extension
10. Head
11. Wing

S1. Outer surface

[0015] The laundry washing and/or drying machine (1) comprises a main body (2); a drum (not shown in the figures) which is disposed in the main body (2) and wherein the laundry is washed and/or dried; a volume (not shown in the figures) which is defined in the main body (2) and which accommodates at least one component which enables the washing and/or drying process to be realized; and a kickplate (3) which is placed onto the main body (2) so as to be opened/closed in order to allow or prevent access to the interior of the volume. The laundry to be treated in the laundry washing and/or drying machine (1) is placed into the drum. In order to treat the laundry in the drum at least with water and/or air, components such as motor, pump, drying unit and air and/or water filter are positioned in the main body (2), and some of said components such as the drying unit, the air filter, etc. are placed preferably into the volume defined near

the base of the main body (2). The kickplate (3) is mounted to the machine (1) so as to cover said volume preferably at the front side, near the base region. For example, when one of the components in the volume malfunctions, the kickplate (3) is opened to reach said component and the interior of the volume and hence the component are reached, and the component is maintained. The kickplate (3) is opened/closed preferably by being rotated around a plane which is parallel to the plane where the floor on which the machine (1) is placed extends.

[0016] The kickplate (3) provided in the laundry washing and/or drying machine (1) of the present invention comprises a kickplate body (4) which defines an outer surface (S1), and at least one handle (5) which is placed onto the kickplate body (4) so as to move between a first position wherein the same does not create a protrusion or recess on the outer surface (S1) so as to provide a continuous outer surface (S1) and a second position wherein the same extends outwards from the outer surface (S1). The outer surface (S1) defined by the kickplate body (4) can be seen from the outside and is preferably a smooth surface. Since the handle (5) is positioned so as not to create a protrusion or recess on the outer surface (S1) in the first position, the outer surface (S1) looks completely smooth when viewed from the outside and user satisfaction in terms of visual quality is provided. When the components in the volume are required to be accessed, the handle (5) is shifted from the first position to the second position by the user, and in this position, extends from the outer surface (S1) to the outside of the laundry washing and/or drying machine (1). Thus, the user can grasp and pull the handle (5) and can access to the interior of the volume by opening the kickplate (3) in a controlled manner.

[0017] In an embodiment of the present invention, the kickplate body (4) comprises at least one chamber (6) which is configured to accommodate the handle (5) in the first position. In this embodiment, the handle (5) is accommodated in said chamber (6) when the volume is not required to be accessed, and the handle (5) is protected against external factors such as impacts and the handle (5) is prevented from creating a protrusion on the outer surface (S1) and deteriorating the integrity of the outer surface (S1).

[0018] In an embodiment of the present invention, the kickplate (3) comprises locking members which are configured to keep the handle (5) in the first position and prevent the same from moving. The locking members are configured to enable the handle (5) to be kept in the first position until a force with a certain magnitude is applied onto the latter. Thus, the handle (5) is prevented from unintentionally shifting from the first position to the second position when the interior of the volume is not required to be accessed and from deteriorating the integrity of the outer surface (S1) and reducing the visual quality of the laundry washing and/or drying machine (1).

[0019] In an embodiment of the present invention, the locking members comprise a connection member (7)

which is provided on the handle (5), and at least one holder (8) which is provided in the chamber (6) so as to be aligned with the connection member (7) and which is configured to fixedly hold the connection member (7) until a force with a certain magnitude is applied onto the handle (5) and to release the connection member (7) so as to allow the handle (5) to move towards the second position when a force with a certain magnitude is applied onto the handle (5). In this embodiment, when force is applied onto the handle (5) which is in the first position, the connection member (7) moves forward so as to be flexibly separated from the holder (8), and as a result of said movement, is freed from the holder (8), allowing the handle (5) to move towards the second position.

[0020] In an embodiment of the present invention, the connection member (7) comprises an extension (9) which is connected to the handle (5) at one end and which extends almost linearly starting from said end, and a head (10) which is provided on the end of the extension (9) not connected to the handle (5) and which has a width greater than that of the extension (9), and the holder (8) comprises at least two wings (11) which can flex to a certain extent by means of the force applied to the handle (5) and transferred thereon via the head (10). In this embodiment, when the handle (5) is in the first position, the wings (11) tightly grasp the head (10) and thus, enable the head (10) to be kept fixed until a force with a certain magnitude is applied onto the handle (5). When said force is applied to the handle (5) which is in the first position, the extension (9) moves almost linearly to a certain extent while the head (10) is held by the wings (11), and the head (10) is flexibly separated from the wings (11) as a result of this movement. Consequently, by means of the separation of the head (10) from the wings (11), the handle (5) shifts from the first position to the second position. When a force is applied onto the handle (5) which is in the second position, depending on the applied force, the handle (5) and hence the connection member (7) move linearly towards the holder (8), and as the head (10) contacts the wings (11), the force applied to the handle (5) is transferred to the wings (11). Thus, the wings (11) flex to a certain extent and grasp the head (10). Thus, the handle (5) is enabled to be shifted to the first position.

[0021] By means of the present invention, the visual quality of the laundry washing and/or drying machine (1) is improved and consequently, user satisfaction is provided by means of the handle (5) which enables the kickplate (3) to be opened/closed by being controlled by the user and which does not affect the integrity of the outer surface (S1) of the kickplate body (4) visible from the outside when the volume covered by the kickplate (3) is not required to be accessed.

Claims

1. A laundry washing and/or drying machine (1) comprising a main body (2); a drum which is disposed in

the main body (2) and wherein the laundry is washed and/or dried; a volume which is defined in the main body (2) and which accommodates at least one component which enables the washing and/or drying process to be realized; and a kickplate (3) which is placed onto the main body (2) so as to be opened/closed in order to allow or prevent access to the interior of the volume, **characterized by** a kickplate body (4) which defines an outer surface (S1), and at least one handle (5) which is placed onto the kickplate body (4) so as to move between a first position wherein the same does not create a protrusion or recess on the outer surface (S1) so as to provide a continuous outer surface (S1) and a second position wherein the same extends outwards from the outer surface (S1).

2. A laundry washing and/or drying machine (1) as in Claim 1, **characterized by** the kickplate body (4) which has at least one chamber (6) which is configured to accommodate the handle (5) in the first position.
3. A laundry washing and/or drying machine (1) as in Claim 1 or 2, **characterized by** the kickplate (3) comprising locking members which are configured to keep the handle (5) in the first position and prevent the same from moving.
4. A laundry washing and/or drying machine (1) as in Claim 4, **characterized by** the locking members comprising a connection member (7) which is provided on the handle (5), and at least one holder (8) which is provided in the chamber (6) so as to be aligned with the connection member (7) and which is configured to fixedly hold the connection member (7) until a force with a certain magnitude is applied onto the handle (5) and to release the connection member (7) so as to allow the handle (5) to move towards the second position when a force with a certain magnitude is applied onto the handle (5).
5. A laundry washing and/or drying machine as in Claim 5, **characterized by** the connection member (7) comprising an extension (9) which is connected to the handle (5) at one end and which extends almost linearly starting from said end, and a head (10) which is provided on the end of the extension (9) not connected to the handle (5) and which has a width greater than that of the extension (9), and by the holder (8) comprising at least two wings (11) which can flex to a certain extent by means of the force applied to the handle (5) and transferred thereon via the head (10).

Figure 1

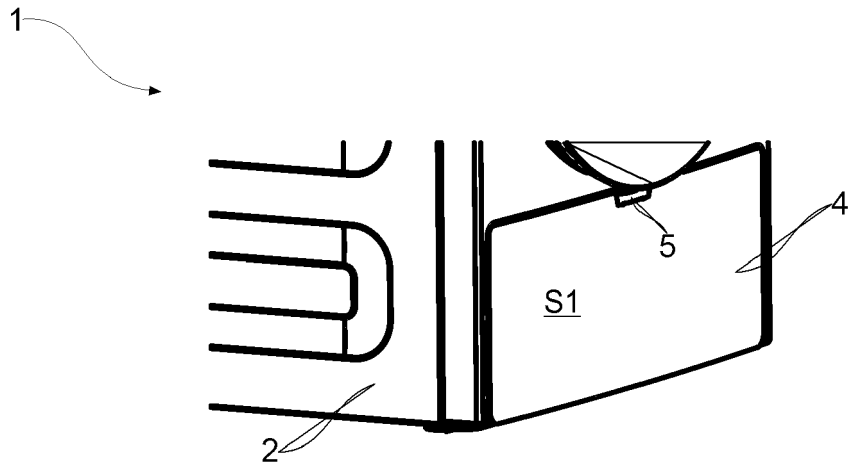


Figure 2

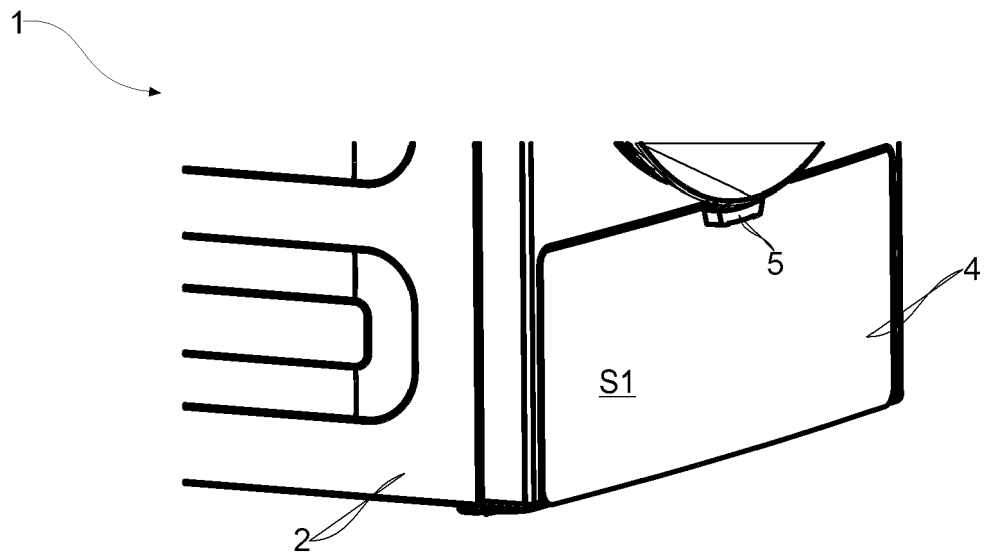


Figure 3

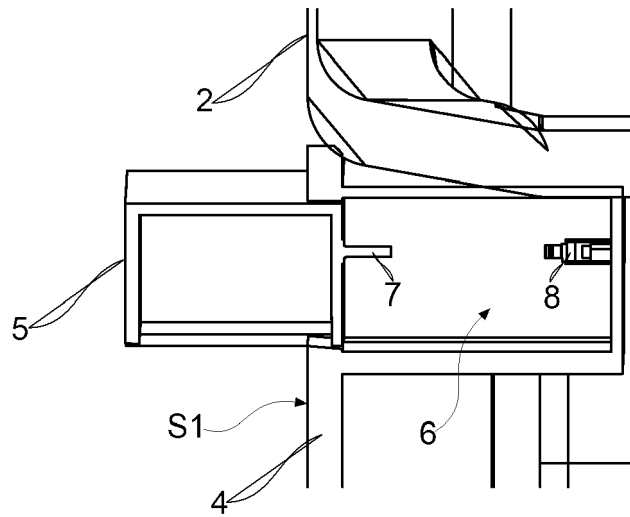


Figure 4

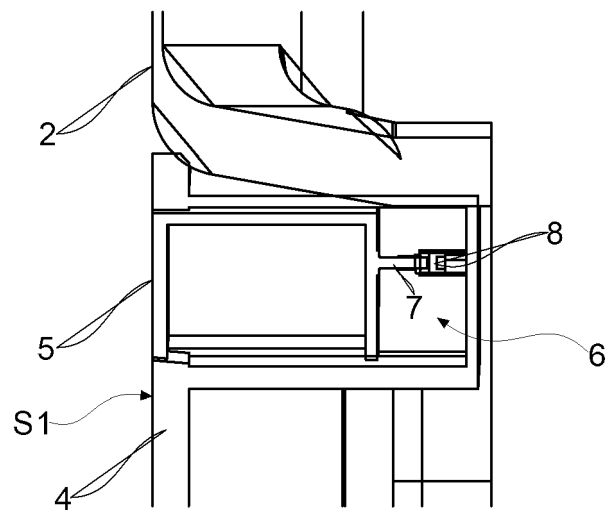


Figure 5

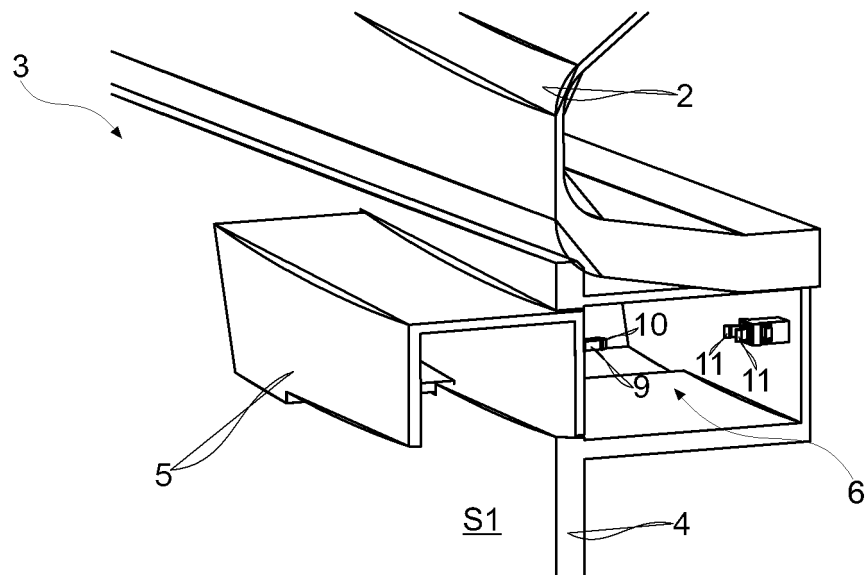
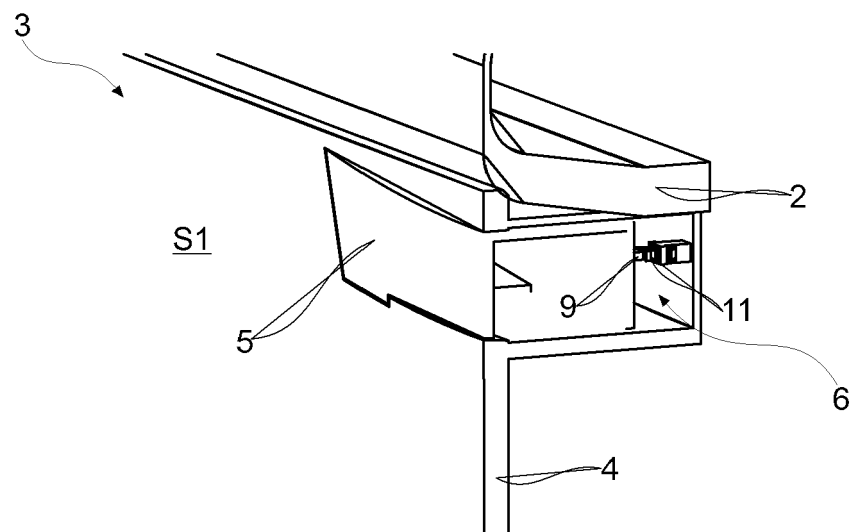


Figure 6





EUROPEAN SEARCH REPORT

Application Number
EP 20 19 3636

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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 5 February 2021	Examiner Werner, Christopher
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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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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