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(54) **A WATER PROTECTION VALVE MOUNTING FOR A WASHER / DRYER**

WASSERSCHUTZVENTILMONTAGE FÜR WASCHMASCHINE/TROCKNER

MONTAGE DE VANNE D'ADMISSION D'EAU POUR MACHINE À LAVER SÉCHANTE

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Description

[0001] The present invention relates to a washer/dryer wherein the water protection valve connected to the mains water faucet is protected from being damaged during transportation.

[0002] In washer/dryers, for example in washing machines or dishwashers, a water protection valve is provided for controlled intake of water from the mains water and this water protection valve is connected to the end of the water intake hose at the rear of the machine. The water protection valve is connected to the mains water (faucet) outside the machine during the installation of the washer/dryer in the place to be used. The water protection valve occupies a considerable volume due to mechanisms such as the solenoid or the like that automatically cuts off the water from the mains water in conditions or water leakage and the like. During transportation, the water protection valve is carried by being attached to an appropriate place, e.g. to the rear wall, connected to the end of the hose at the rear of the machine in order to easily connect to the mains water faucet during the subsequent installation process; however, difficulties arise in placing the water protection valve into the packaging together with the machine and protecting from impacts.

[0003] In the European Patent Document No EP0915197, during the transportation of a household appliance such as a laundry washer/dryer or a dishwasher, the water protection valve and the water discharge tube are carried by fixing on the rear wall of the machine by means of a U-shaped bend.

[0004] In the German Patent Application No DE19629884, during the transportation of a washing machine, a connecting mechanism disposed in a lining and connected to the end of the water intake hose is carried by securing between the rear wall of the washing machine and a crossbeam mounted on the rear wall.

[0005] EP-A-1,482,083 discloses, a washing machine from the prior art.

[0006] The aim of the present invention is the realization of a washer/dryer wherein the water protection valve is carried appropriately during transportation for preventing damages.

[0007] In the washer/dryer realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, the water protection valve, having a large volume due to the elements contained therein, which will be connected to the mains water faucet during installation after the transportation, is attached to a valve carrier at the rear of the top plate during transportation, secured under the extension extending outwards from the body whereon the top plate is mounted. Thus, the water protection valve can be carried during transportation without posing a problem for the outer packaging and the water protection valve is protected from impacts.

[0008] The valve carrier is produced of a threaded, clamped or latched configuration such that the water protection valve can be carried suspended under the extension at the rear of the top plate. After the transportation, the valve carrier can be easily detached from the washer/dryer if required since the task thereof is terminated.

[0009] The aqua-stop valve is placed by suspending under the extension, disposed at the rear of the top plate, which prevents the elements at the rear from damaging when the machine is moved close to the wall, thereby the dead zone under the extension is utilized and the water protection valve occupying a considerable volume is concealed under the extension. Since the water protection valve does not protrude outwards, the packaging dimensions of the washer/dryer are not affected.

[0010] The washer/dryer realized in order to attain the aim of the present invention is illustrated in the attached figures, where:

[0011] Figure 1 - is the schematic view of a washer/dryer.

[0012] Figure 2 - is the partial perspective view of a washer/dryer wherein a valve carrier of a threaded configuration is used and a water protection valve.

[0013] Figure 3 - is the partial perspective view of a washer/dryer wherein valve carriers of clamped configuration are mounted.

[0014] Figure 4 - is the partial perspective view of the washer/dryer in Figure 3, with the water protection valve mounted thereon.

[0015] Figure 5 - is the partial perspective view of a washer/dryer wherein valve carriers of latched configuration are mounted to the top plate.

[0016] Figure 6 - is the partial perspective view of the washer/dryer in Figure 5, with the water protection valve mounted thereon.

[0017] The elements illustrated in the figures are numbered as follows:

1. Washer/dryer
2. Body
3. Upper plate
4. Water protection valve
5. Extension
6. Valve carrier

[0018] The washer/dryer (1) comprises a body (2), a top plate (3) that covers the upper part of the body (2) and a water protection valve (4) that is connected between the mains water faucet and the water intake hose outside of the body (2), which maintains controlled intake of water from the mains water and to automatically cut off the water in case of a failure like water leakage.

[0019] The washer/dryer (1) furthermore comprises an extension (5) situated at the rear side of the top plate (3) that extends outwards from the body (2) whereto it is mounted such that a space is left between the wall of the installation site or with the package.

[0020] While the washer/dryer (1) is being positioned, the extension (5) bears against the wall, preventing the body (2) from moving further closer to the wall and pro-

tects the elements situated at the rear side of the body (2) from damages.

[0021] The washer/dryer (1) of the present invention comprises a valve carrier (6) that is mounted to the extension (5) for carrying the water protection valve (4) suspended under the extension (5) during transportation.

[0022] The dead zone under the extension (5) is utilized for disposing the water protection valve (4).

[0023] The water protection valve (4) suspended under the extension (5) is covered from above with the extension (5) by adjusting the position of the valve carrier (6) on the extension (5).

[0024] The water protection valve (4) does not project outwards from the level of the extension (5) in the transportation position and does not pose an obstacle for the package.

[0025] In an embodiment of the present invention, the valve carrier (6) is of a threaded configuration, whereon the connection elements such as the nut (S), situated on the water protection valve (4), used for connecting to the mains water faucet are mounted. During transportation, the water protection valve (4) is mounted to the valve carrier (6) by means of threaded elements like the nut (S) included thereon, which will be later used for the faucet connection and after the transportation is easily detached from the threaded valve carrier (6) to be connected to the mains water faucet (Figure 2).

[0026] The thread form of the valve carrier (6) matches the thread form of the nut (S) at the mains water faucet to which the water protection valve (4) will be mounted. Accordingly, the water protection valve (4) is easily mounted to the valve carrier (6) by means of the nut (S) maintaining the connection to the mains water faucet without requiring any additional elements, and later on the water protection valve (4) is detached from the valve carrier (6) again by means of the nut (S) and mounted to the mains water faucet.

[0027] In another embodiment of the present invention, the valve carrier (6) is of a clamped configuration that surrounds the inlet and outlet portions of the water protection valve (4) maintaining thereof to be carried suspended under the extension (5). The clamped form valve carrier (6) is mounted in the open position under the extension (5) from one end, the other end is left free downwards, and after the water protection valve (4) is emplaced therein, the ends are locked by closing and the water protection valve (4) is carried suspended under the extension (5) (Figures 3, 4). After the transportation, the water protection valve (4) is detached by dismounting the valve carrier (6) and the mains water connection is made.

[0028] In another embodiment of the present invention, the valve carrier (6) is of a latched configuration, having springy arms that open while the water protection valve (4) is mounted therein, surrounding the water protection valve (4) to be carried suspended under the extension (5). The latched form valve carrier (6) is mounted under the extension (5), with the arms being downward and the water protection valve (4) is seated therein by opening the arms of the valve carrier (6) (Figures 5, 6). After the transportation, the water protection valve (4) is pulled downwards, thus opening sideways the arms of the latched form valve carrier (6) and the water protection valve (4) is detached from the valve carrier (6) for making the mains water connection.

[0029] By means of the embodiment in the present invention, in the washer/dryer (1) the water protection valve (4) is suspended under the extension (5) situated at the top plate (3) and extending towards the rear side of the body (2), thus the dead zone under the extension (5) is utilized and the water protection valve (4) that occupies a considerable amount of volume does not affect the dimensions of the washer/dryer (1) package. The water protection valve (4) is concealed under the extension (5) and protected from impacts during transportation.

Claims

1. A washer/dryer (1) comprising a body (2), a top plate (3) that covers the upper part of the body (2) and a water protection valve (4) that is connected between the mains water faucet and the water intake hose outside of the body (2), and an extension (5) situated at the rear side of the top plate (3) that extends outwards from the body (2) whereon the top plate (3) is mounted and **characterized by** a valve carrier (6) that is mounted to the extension (5) for carrying the water protection valve (4) suspended under the extension (5) during transportation.

2. A washer/dryer (1) as in Claim 1, **characterized by** the valve carrier (6) of a threaded configuration, whereon the connection elements such as the nut (S), situated on the water protection valve (4) and used for connecting to the mains water faucet are mounted.

3. A washer/dryer (1) as in Claim 1, **characterized by** the valve carrier (6) of a clamped configuration, that surrounds the inlet and outlet portions of the water protection valve (4) maintaining thereof to be carried suspended under the extension (5).

4. A washer/dryer (1) as in Claim 1, **characterized by** the valve carrier (6) of a latched configuration, having springy arms that open while the water protection valve (4) is mounted therein, surrounding the water protection valve (4) for being carried suspended under the extension (5).

Patentansprüche

1. Wasch-/Trockenmaschine (1), umfassend einen Gehäusekörper (2), eine obere Platte (3), die den

oberen Teil des Gehäusekörpers (2) abdeckt, und ein Wasserschutzventil (4), das zwischen dem Wasserversorgungsanschluss und dem Wassereinlassschlauch außerhalb des Gehäusekörpers (2) angeschlossen ist, und eine Verlängerung (5), die an der Rückseite der oberen Platte (3) angeordnet ist, und die sich vom Gehäusekörper (2) nach außen erstreckt, und an der die obere Platte (3) montiert ist, und **gekennzeichnet durch** einen Ventilträger (6), der an der Verlängerung (5) montiert ist, um das Wasserschutzventil (4) zu tragen, das während des Transports unter der Verlängerung (5) aufgehängt ist.

2. Wasch-/Trockenmaschine (1) nach Anspruch 1, **gekennzeichnet dadurch, dass** der Ventilträger (6) einen Gewindeaufbau aufweist, und an ihm Verbindungselemente wie z. B. die Mutter (S) montiert sind, die am Wasserschutzventil (4) angeordnet ist und die zur Verbindung mit dem Wasserversorgungsanschluss dient.

3. Wasch-/Trockenmaschine (1) nach Anspruch 1, **dadurch gekennzeichnet, dass** der Ventilträger (6) einen Klemmenaufbau aufweist, der den Einlass- und Auslassabschnitt des Wasserschutzventils (4) umgibt, damit dieses unter der Verlängerung (5) aufgehängt gehalten werden kann.

4. Wasch-/Trockenmaschine (1) nach Anspruch 1, **dadurch gekennzeichnet, dass** der Ventilträger (6) einen Rastaufbau aufweist, der federnde Arme aufweist, die sich öffnen, während das Wasserschutzventil (4) darin montiert ist, und der das Wasserschutzventil (4) umgibt, damit es unter der Verlängerung (5) aufgehängt gehalten werden kann.

Revendications

1. Une laveuse/sécheuse (1) comprenant un corps (2), une plaque supérieure (3) qui recouvre la partie supérieure du corps (2) et une soupape de protection de l'eau (4) qui est connectée entre le robinet d'eau potable et l'eau du tuyau d'aspiration à l'extérieur du corps (2), et une extension (5) située à l'arrière de la plaque supérieure (3) qui s'étend vers l'extérieur du corps (2) sur lequel la plaque supérieure (3) est montée et **caractérisée par** une valve porteuse (6) qui est montée à l'extension (5) pour la réalisation de soupape de protection de l'eau (4) suspendu en bas de l'extension (5) pendant le transport.

2. Une laveuse/sécheuse (1) selon la revendication 1, **caractérisé par** la valve porteuse (6) d'une configuration filetée, sur laquelle sont montés les éléments de connexion comme l'écrou (S), situé sur la soupape de protection de l'eau (4) et utilisé pour la connexion au robinet d'eau potable.

3. Une laveuse/sécheuse (1) selon la revendication 1, **caractérisé par** la valve porteuse (6) d'une configuration serrée, qui entoure l'entrée et des parties de la soupape de protection de l'eau (4), le maintien de celle-ci en transport étant à assurer par suspension en bas de l'extension (5).

4. Une laveuse/sécheuse (1) selon la revendication 1, **caractérisé par** la valve porteuse (6) d'une configuration de fermeture, avec des bras élastiques qui s'ouvrent alors que la soupape de protection de l'eau (4) y est monté, autour de la soupape de protection de l'eau (4) suspendue en bas de l'extension (5) pour le transport.

Figure 1

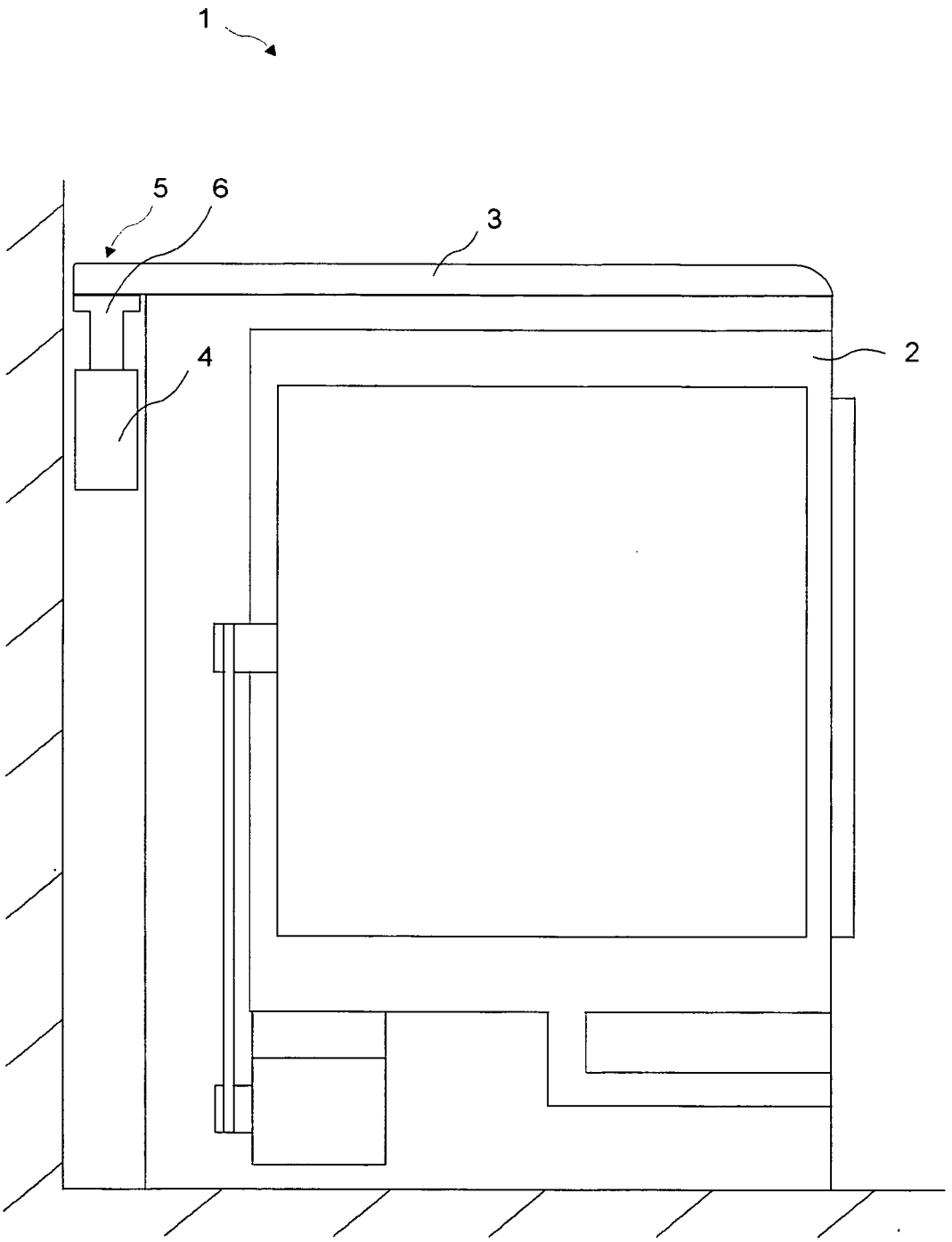


Figure 2

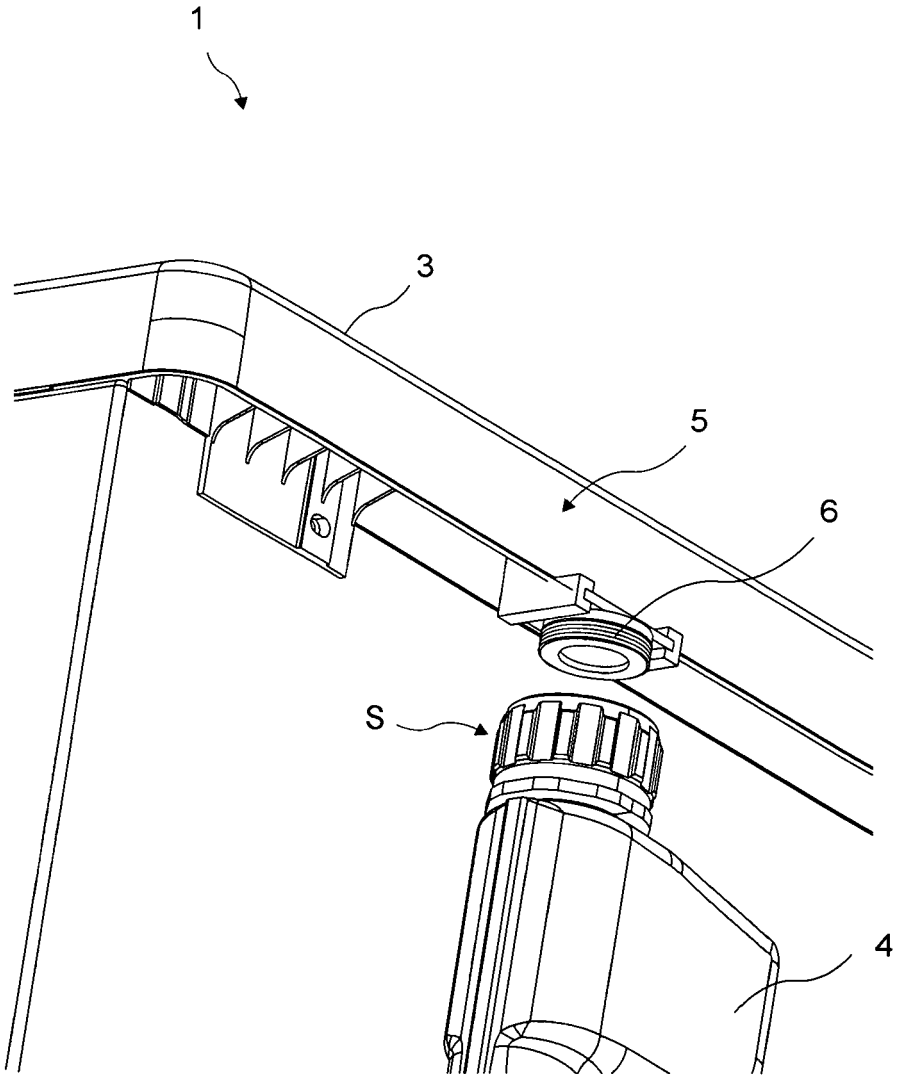


Figure 3

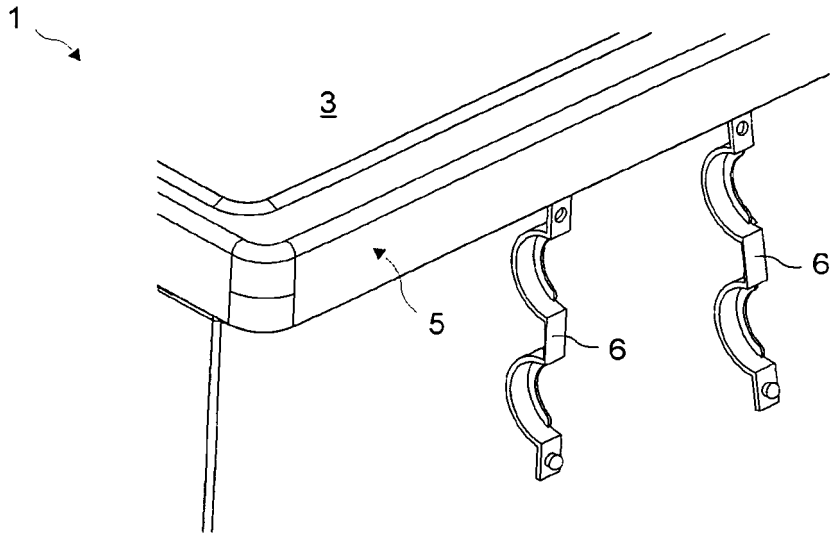


Figure 4

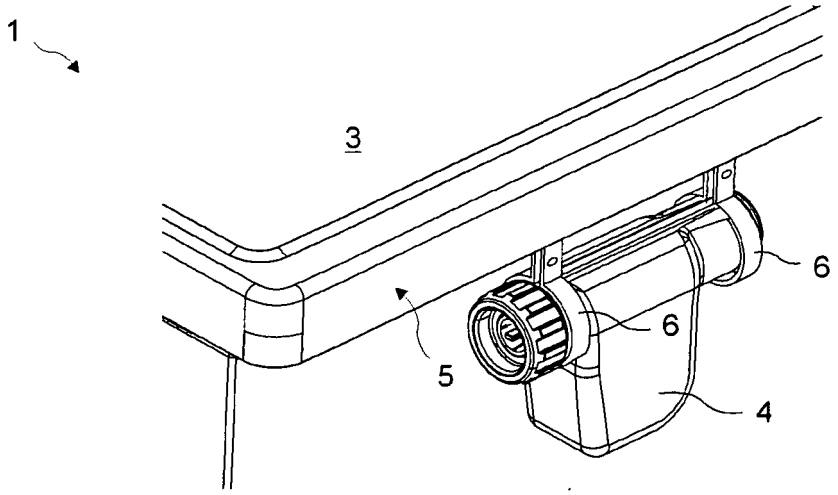


Figure 5

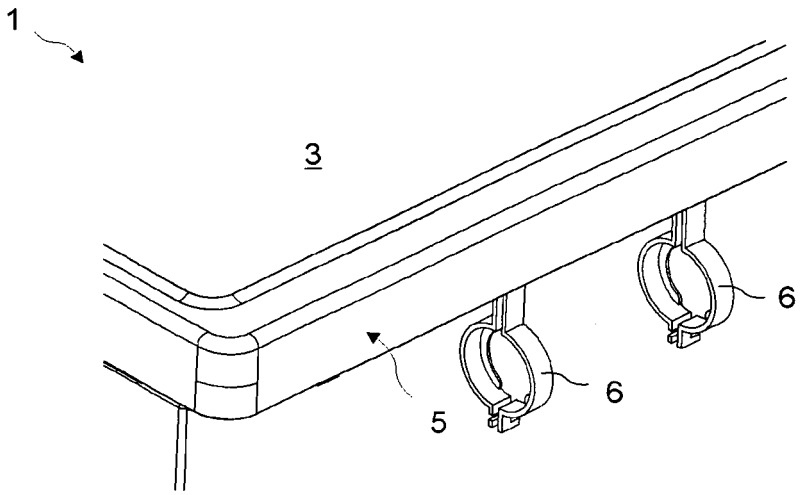
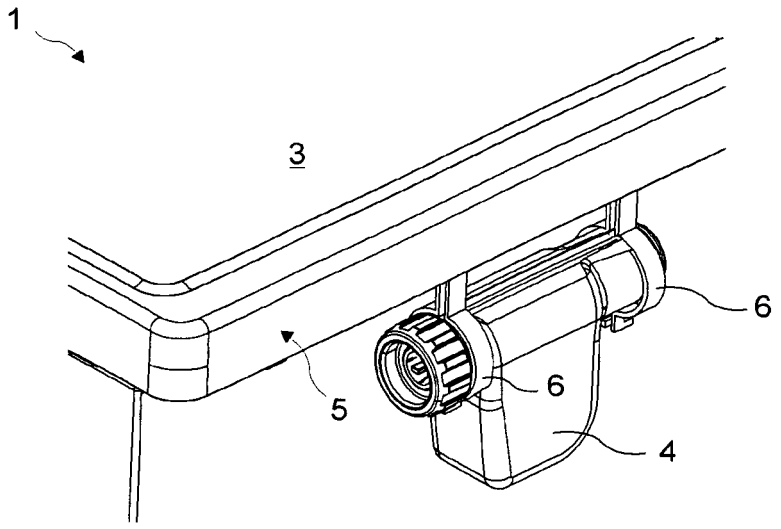


Figure 6



REFERENCES CITED IN THE DESCRIPTION

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