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(54) **CONTAINER DOOR FOR A WASTE CONTAINER AND A CONTAINER COMPRISING THE
CONTAINER DOOR**

(57) A container door (10) for a waste container (120), the container door (10) comprising

- an inner side (12) for facing an inside of a container (120) and an outer side (14),
- a hook (110) positioned on the outer side (14),
- a locking mechanism (20) positioned on the inner side (12), the locking mechanism (20) comprising a transverse bar (30) rotatable around a transverse pivot axis (32), the transversal bar (30) being operational connected to the locking mechanism for locking the door (10),
- means for rotation (40) of the transverse bar (30) extending from the transverse bar (30) to the outer side (14),
- a gripper (50) positioned on the inner side (12), the gripper (50) being adapted for releasable preventing rotation of the transverse bar (30),
- a container aperture (90) enabling the gripper (50) to be controlled from the outer side (14).

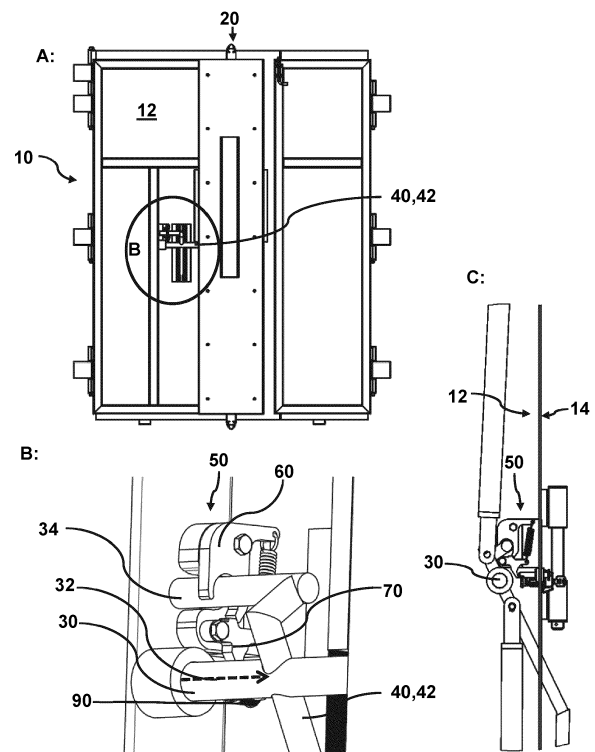


Fig. 4

Description

Field of the Invention

[0001] The present invention relates to a container door for a waste container and a container comprising the container door.

[0002] The container door may comprise a hook, which is used to pull and lift the container unto a truck or the like using a hook lift. The hook and thus door must e.g. be able to withstand 18 ton of pulling force.

Background of the Invention

[0003] A recycling depot or waste depot is often a mix of professionals working at the recycling depot or waste depot and private persons. The risk of accidents happening for the private persons is higher due to lack of knowledge.

[0004] The private persons may if not prevented or supervised open a closed container for asbestos, and then start to move the asbestos causing airborne asbestos, which is a serious health risk.

[0005] Thus, there is a need for a container door increasing the safety of the operation of containers.

[0006] Another problem is that a container is dragged by the hook, which hook is positioned on the door. If the door is not properly locked then the door will be pulled open due to the 18 tons of pulling force.

[0007] This may happen if the locking mechanism, such as two door locking pawls as described in DK179585, is not properly secured into a frame of the container. The difference between a proper locking and a near proper locking is hard to notice in DK179585 such as if the handle is not in the lower most position.

[0008] A further problem with DK179585 is that handle is positioned below hook. Sometimes, when the container is to be pulled at the hook, the hook lift is mistakenly attached to the handle, which causes severe damage to at least the container since the handle cannot withstand a pulling force of 18 ton.

[0009] The hook lift is typically positioned on a truck. The truck driver will in some cases operate the hook lift from the driver seat with a poor view of the container and as a result of the poor view sometimes the hook lift pulls the handle instead of the hook.

Object of the Invention

[0010] It is an object of the invention to provide a container door and a container comprising the container door, which improves the safety on a recycling depot and/or reduces the risk of damaging the container during movement.

Description of the Invention

[0011] An object of the invention is achieved by a con-

tainer door for a waste container.
The container door may comprise

- an inner side for facing an inside of a container and an outer side;
- a hook positioned on the outer side;
- a locking mechanism positioned on the inner side. The locking mechanism may comprise a transverse bar rotatable around a transverse pivot axis, the transversal bar being operational connected to the locking mechanism for locking the door,
- means for rotation of the transverse bar extending from the transverse bar to the outer side;
- a gripper positioned on the inner side, the gripper being adapted for releasable preventing rotation of the transverse bar,
- a container aperture enabling the gripper to be controlled from the outer side.

[0012] The outer side is to be accessible to a user of the container door.

[0013] The container door comprises a hook positioned on the outer side. The hook is designed such that the container door and container having the container door can be pulled upon a truck or the like with a large pulling force. The pulling force is typically 18 ton. Typically, a hook lift is used for pulling the container unto the truck.

[0014] The container door comprises a locking mechanism positioned on the inner side, the locking mechanism comprising a transverse bar rotatable around a transverse pivot axis, the transversal bar being operational connected to locking mechanism for locking the door. The locking mechanism is controlled by rotation of the transverse bar.

[0015] The locking mechanism may be like the locking mechanism disclosed in DK179585, which is also shown in figure 1. In this case two opposite directed pawls are controlled by a pivotal movement of a handle causing the pawls to be inserted into apertures in a container or a be retracted from the apertures in the container.

[0016] The container door comprises means for rotation of the transverse bar, the means extending from the transverse bar to the outer side. Thereby, the locking mechanism can be controlled by a user on the outer side.

[0017] The means for rotation may be a pivotal handle connected to the transverse bar.

The container door may comprise a gripper positioned on the inner side, the gripper being adapted for releasable preventing rotation of the transverse bar.

[0018] The gripper may be one or more friction members positioned at a part of the transverse bar, wherein the one or more friction members can be forced towards the transverse bar, thereby preventing further rotation.

[0019] The gripper may be a rotational or transversally displaceable pike wherein the transverse bar comprise a recess adapted to the pike and the pike can be inserted into the recess of the transverse bar, when the locking

mechanism is in the position causing the container door to lock.

[0020] The container door may comprise a container aperture enabling the gripper to be controlled from the outer side.

[0021] Thereby, the container door reduces the risk of the container door accidentally being forced opened when pulling the hook of the container door as the means for rotation of the transverse bar is indirectly locked in place by the gripper. Thus, any forces on the handle will not cause the locking mechanism to open or just partially open.

[0022] Further since the gripper is controlled through the container aperture, then it will in general be in accessible to private persons as the person does not know that may a simple pawl being inserted into aperture will allow the container door and thus container to be opened. Thereby a private person is prevented to open an asbestos container without supervision.

[0023] In an embodiment, the means for rotation of the transverse bar, such as a handle, is transversely offset relative to the hook to prevent a hook lift on a truck from engaging the locking mechanism instead of the hook when pulling the container unto the truck.

[0024] The offset ensures that the means for rotation of the transverse bar is not above or below the hook. Thereby the risk of a hook lift pulling the means is reduced significantly, when the container is to be pulled by the hook lift onto a truck by the hook.

[0025] In an aspect of the invention, the container door may comprise an inner handle extending from the transverse bar and the gripper being positioned to grip the inner handle.

[0026] Since the inner handle extend from the transverse bar, the gripper can grip with less force due to an increase in force.

[0027] Furthermore, the gripper may be a rotatable member which can block the rotation of the transverse bar by simple blocking the rotation path of the inner handle. The rotation can be controlled through the container aperture.

[0028] In an aspect of the invention, the gripper may comprise a C-shaped body for receiving the inner handle, wherein the locking mechanism is in a locked position when the inner handle is positioned in the C-shaped body.

[0029] The gripper may comprise a block member being rotatable around a block pivot axis between a block position preventing rotation of the inner handle away from the C-shaped body by blocking the inner handle between the block member and the C-shaped body, and a release position allowing rotation of the inner handle away from the C-shaped body.

[0030] Thereby, the user can easily test if the locking mechanism is locked correctly if the means for rotation cannot be moved then the locking mechanism is proper locked. The user can afterwards pull the container door and thus container by the hook.

[0031] In an aspect of the invention, the block member may comprise a block finger, and the block finger being adapted to block the inner handle when in the block position.

5 **[0032]** The block finger is a simple way of blocking the C-shaped body.

[0033] In an aspect of the invention, the block member may be rotationally connected to the C-shaped body.

10 **[0034]** Thereby, the gripper unit becomes more compact and the unit can be produced as a single unit.

[0035] In an aspect of the invention, the gripper may comprise

- a release member, which is rotatable around a release pivot axis,
- 15 - a biasing member extending between the block member and the releasing member, wherein the release member is adapted to prevent rotation of the block member in the block position.

20 The rotation of the release member is controlled by a user through the container aperture, this may simply be done by pushing the release member.

[0036] The biasing member may be a spring.

25 **[0037]** The biasing member is adjusted to secure the relative positioning of the block member and the release member, when the gripper is gripping the inner handle and when the inner handle is released.

30 **[0038]** In an aspect of the invention, the block member may comprise a block thumb extending towards the release member, and the release member comprising a release pawl extending towards the block member, wherein the block thumb and the release pawl are adapted to frictionally connect.

35 **[0039]** Tests have shown that the block thumb and release pawl are especially advantageous. Because the biasing member causes the block thumb and release pawl to frictionally connect, thereby gripping the inner handle and preventing rotation of the transverse bar. Furthermore, the block thumb, the release member and the biasing member will prevent the gripper to move into the grip position as the biasing member forces the block thumb away from the release pawl.

40 **[0040]** Thereby, the gripper becomes more reliable which eases operation.

45 **[0041]** In an aspect of the invention, the release member comprises a release finger extending from the release member, the release finger being positioned in front of the container aperture.

50 **[0042]** This enables for a reliable way to release the gripper as a longitudinal member can be inserted into the container aperture thereby releasing the gripper.

[0043] In an aspect of the invention, the container door comprises a pin being slideable positioned in the container aperture.

55 **[0044]** Thereby, the gripper is released by pressing the pin.

The pin is also a visual indicator for whether the gripper

grips the inner handle or not. If the pin is completely inserted into the aperture then the inner handle is released from the gripper. If the pin is in an outer most position then the gripper grips the inner handle.

[0045] The pin may have a padlock aperture for locking the pin in place using a padlock.

[0046] Thereby, a private person at a recycling depot or waste depot will not be able to gain access to a closed container without the help of a professional. Thus, the private person will be under supervision when delivering asbestos or the like.

[0047] In an aspect of the invention, the container door may further comprise an aperture lock on the outer side controlling a lock pawl, the lock pawl movable to and from a position between the container aperture and the gripper.

[0048] Thereby, the container aperture is blocked by simple mechanical means.

[0049] The aperture lock may advantageously be a key lock.

[0050] In an aspect of the invention, the pin comprises a pin recess and the lock pawl being adapted to engage the pin recess.

[0051] Thereby, the movement of the pin recess is controlled by simple mechanical means.

[0052] In an aspect of the invention, the release member and the block member are rotatable in a common plane.

[0053] Thereby, the movement of the release member and the block member becomes more reliable.

[0054] It is further advantageous if the release member and the block member are both rotationally connected to the C-shaped body as the gripper becomes more compact.

[0055] In an aspect of the invention, the means for rotation of the transverse bar is an outer handle extending from the transverse bar to the outer side, the outer handle being pivotal between a first position locking the container door and a second position unlocking the container door.

[0056] The outer handle enables a large torque, thereby allowing for easier locking of the locking mechanism.

[0057] In an embodiment the outer handle is transversely offset relative to the hook, such that the handle is not above or below the hook. Thereby the risk of the handle being pulled by mistake, when the container is to be pulled at the hook, is reduced.

[0058] The gripper may be made by a metal, such as steel or aluminum.

[0059] An object of the invention is achieved by a method for releasable gripping a locking mechanism of a container door comprising

- an inner side for facing an inside of a container and an outer side,
- a hook positioned on the outer side,
- a locking mechanism positioned on the inner side, the locking mechanism comprising a transverse bar

rotatable around a transverse pivot axis, the transversal bar being operationally connected to locking mechanism for locking the door,

- means for rotation of the transverse bar extending from the transverse bar to the outer sides, the method comprising
- an act of actuating a gripper through a container aperture in the container door; thereby causing the gripper to grip or release the transverse bar.

[0060] Thereby, the method enables a simple and efficient way for gripping the locking mechanism by preventing rotation of the transverse bar.

[0061] An object of the invention is achieved by a container comprising a container door according to one or more of previous described aspects and/or embodiments.

[0062] The container may be a waste container.

[0063] The container may be an open container, wherein the container is always accessible through a side or a top even though the container door is closed and in a locked position.

[0064] The container may be a closed container, wherein the container is closed when the container door is closed and in a locked position.

[0065] Another invention is a container door for a waste container. The container door comprises an inner side and an outer side having a hook.

[0066] The outer side is to be accessible to a user of the container door.

[0067] The hook is designed such that the container door and container having the container door can be pulled upon a truck having a hook lift or the like with large pulling force. The pulling force is typically 18 ton.

[0068] The container door comprises a locking mechanism positioned on the inner side, the locking mechanism comprising a transverse bar rotatable around a transverse pivot axis. The transversal bar is operationally connected to a locking mechanism for locking the door.

[0069] The locking mechanism may be like the locking mechanism disclosed in DK179585, which is also shown in figure 1. In this case two opposite directed pawls are controlled by a pivotal movement of a handle causing the pawls to be inserted into apertures in a container or a be retracted from the apertures in the container.

[0070] The container door comprises means for rotation of the transverse bar extending from the transverse bar to the outer side, wherein the means for rotation are transversally offset to the hook.

[0071] The means for rotation of the transverse bar may be a handle.

[0072] The offset ensures that the means for rotation of the transverse bar is not above or below the hook. Thereby the risk of a hook lift pulling the handle is reduced significantly, when the container is to be pulled by the hook lift onto a truck by the hook.

[0073] The transversally offset is relative to a horizontal plane, however the means for rotation and the hook does

not need to be at the same height. The means for rotation may be at the same height, above or below the hook.

[0074] In an aspect, the hook is symmetrically positioned as this enables symmetrically distribution of force when the hook is pulled.

[0075] Typically the hook is positioned such that the hook is positioned symmetrically on one of the container sides.

[0076] The container and container door may be such adapted that the hook is positioned symmetrically on one of the container sides.

Description of the Drawing

[0077]

Fig. 1 discloses a prior art container door for a waste container;

Fig. 2 discloses a container comprising a closed container door;

Fig. 3 discloses an embodiment of a gripper;

Fig. 4 discloses an inner side of a container door;

Fig. 5 discloses a first and second position of a gripper, aperture lock and inner handle;

Fig. 6 discloses second position of a gripper, aperture lock and inner handle;

Fig. 7 discloses a container comprising an opened container door; and

Fig. 8 discloses a container comprising a container door having transversely off-set hook and handle.

Detailed Description of the Invention

Item	Reference
Container door	10
Inner side	12
Outer side	14
Locking mechanism	20
Transverse bar	30
Transverse pivot axis	32
Inner handle	34
Means for rotation	40
Outer handle	42
First position	44
Second position	46

(continued)

Item	Reference
Gripper	50
C-shaped body	52
Biasing member	54
Block member	60
Block pivot axis	62
Block finger	64
Block thumb	66
Release member	70
Release pivot axis	72
Release pawl	74
Release finger	76
Block position	80
Release position	82
Container aperture	90
Pin	92
Pin recess	94
Aperture lock	100
Lock pawl	102
Hook	110
Container	120

[0078] Fig. 1 discloses a prior art container door for a waste container. The prior art container is described in greater detail in DK179585.

[0079] A problem with this container door 10 is that the container 120 is pulled by the hook 110 positioned on the container door 10. If the container door 10 is not properly locked then the container door 10 will be pulled open due to 18 tons of pulling force.

[0080] This may happen if the locking mechanism 20, such as two door locking pawls, is not properly secured into a frame of the container 120. The difference between a proper locking and a near proper locking is hard to notice in DK179585 such as if the handle 40 is not in the lower most position.

[0081] A further problem with DK179585 is that the handle 40 is positioned below the hook 110. Sometimes, when the container 120 is to be pulled at the hook 120 by a hook lift, the hook lift is mistakenly pulling to the handle 40, which causes severe damage to at least the container 120 since the handle 40 cannot withstand a pulling force of 18 ton.

[0082] Fig. 2 discloses a container 120 comprising a container door 110 in a closed position.

[0083] The container 120 is an open container with an

open backside and topside, however it could have been a closed container with no other openings than the container door 10.

[0084] The container door 10 comprises two pivotal parts, however the container door 20 may have a single pivotal door.

[0085] The container door 10 comprises an inner side 12 for facing the inside of the container 120 and an outer side 14, which can be operated by a user.

[0086] The container door 10 comprises a hook 120 to be used when pulling the container 120 to and from a truck or the like.

[0087] The container door 10 comprises a not shown locking mechanism 20, which is controlled by a pivotal outer handle 40, 42. In this case if the outer handle 40, 42 is moved upwardly then the locking mechanism will open the container door.

[0088] The outer handle 40, 42 is transversely offset relative to the hook 110 to avoid the handle being used when pulling the container.

[0089] The container door 10 further comprises a container aperture 90 from where a person can control a gripper 50 (see fig. 3) adapted to prevent rotation of the outer handle 40, 42 by gripping a transverse bar (see fig. 4).

[0090] Fig. 3 discloses an embodiment of a gripper 50. Fig. 3B and 3C illustrates how the gripper grips and releases an inner handle 48 of a transverse bar 40 (see fig. 4).

[0091] The gripper 50 comprises a C-shaped body 52 for receiving the inner handle 34.

[0092] The gripper 50 comprises a block member 60 being rotationally connected to the C-shaped body 52.

[0093] The block member 60 is rotatable around a block pivot axis 62 between a block position 80 preventing rotation of the inner handle 34 away from the C-shaped body 52 by blocking the inner handle 34 between the block member 60 and the C-shaped body 52, and a release position 82 allowing rotation of the inner handle 34 away from the C-shaped body 52.

[0094] The block member 60 comprises a block finger 64, and the block finger 64 being adapted to block the inner handle 34 when in the block position 80.

[0095] The gripper 50 comprises a release member 70 being rotationally connected to the C-shaped body 52. The release member 70 is rotatable around a release pivot axis 72.

[0096] The gripper 50 comprises a biasing member 54 extending between the block member 60 and the releasing member 70, wherein the release member 70 is adapted to prevent rotation of the block member 60 in the block position 80.

[0097] The release member 70 and the block member 50 are rotatable in a common plane.

[0098] The block member 60 comprises a block thumb 66 extending towards the release member 70, and the release member 70 comprises a release pawl 74 extending towards the block member 60, wherein the block

thumb 66 and the release pawl 74 are adapted to frictionally connect. This is described in Fig. 3B.

[0099] The release member 70 comprises a release finger 76 extending from the release member 70, the release finger 76 being positioned in front of the container aperture 90. This is described in Fig. 3C.

[0100] In Fig. 3B if the block finger 64 is exposed to a force (Point I) then the block member 60 will try to rotate around the block pivot axis 62 (Point II), however the block thumb 66 will engage with the release pawl 74 thereby preventing further rotation (Point III).

[0101] In Fig. 3C if the release finger 76 is exposed to a force (Point I) then the release member 70 will rotate around release pivot axis 72 (Point II). This will cause the biasing member 54 being a spring to expand (Point III) such that the release pawl 74 glides of the block thumb 66. Thereby enabling rotation of the block member 60 around the block pivot axis 62 and the gripper is in a released position.

[0102] Fig. 4 discloses an inner side 12 of a container door 10. The container door 10 comprises a locking mechanism 20 being two locking pawls.

[0103] The locking mechanism 20 is controlled by rotation of a transverse bar 30 around a transverse pivot axis 32, which can be actuated by outer handle 40, 42, 42 extending from the inner side 12 to an outer side 14.

[0104] The container door 10 comprises an inner handle 48 extending from the transverse bar 34 and a gripper 50 being positioned to grip the inner handle 34. The gripper 50 has the features disclosed in fig. 3.

[0105] The release of the gripper 50 is controlled through a container aperture 90.

[0106] Fig. 5 discloses a first (A) and second position (B) of a gripper 50, an aperture lock 100 and an inner handle 34.

[0107] The inner handle 34 is disclosed without the transverse bar 30 or the container door 10 for clarity purposes, however the transverse bar 30 must be present. The means for rotation 40 is disclosed as an outer handle 40, 42 extending from the transverse bar 30. The gripper 50 is in a block position 80 in Fig. 5A. The gripper 50 has the features disclosed in fig. 3.

[0108] The container door 10 comprises a pin 92 being slideable positioned in the container aperture 90.

[0109] The not shown container door 10 further comprises the aperture lock 100 on the outer side 14 controlling a lock pawl 102, the lock pawl 102 movable to and from a position between the container aperture 90 and the gripper 50. In Fig. 5A the lock pawl 102 is in a position between the container aperture 90 and the gripper 50

[0110] The aperture lock 100 is in this embodiment a key lock.

[0111] The pin 92 comprises a pin recess 94 and the lock pawl 102 being adapted to engage the pin recess 94, thereby preventing the pin to be pushed into the release finger 76 of the release member 70.

[0112] In fig. 5B the locking pawl 102 is not blocking the container aperture 90 as the locking pawl 102 does

not engage the pin recess 94.

[0113] Fig. 6 discloses a third position of a gripper 50, aperture lock 100 and inner handle 34.

[0114] Fig. 6 should be read in continuation of fig. 5, wherein the inner handle 34 is released from the gripper 50 because the pin 92 has been pressed and the gripper 50 has released the inner handle 34 as described in fig. 3C.

[0115] The biasing member 64 ensures that the gripper 50 does not grip without a rotational movement of the inner handle 34 towards the C-shaped body 52.

[0116] Fig. 7 discloses a container 120 comprising an opened container door 10.

[0117] Fig. 8 discloses a container 120 comprising a container door 10 having a transversely off-set hook 110 and a handle 40, 42.

[0118] The risk of the means of rotation i.e. the outer handle 40, 42 being pulled, when the container 120 is to be pulled onto a truck or the like is reduced by the simple way of transversely off-setting the hook 110 and the outer handle 40, 42, 42.

[0119] This is done by extending a transverse bar 30 rotationally controlling the locking mechanism 20 of the door 10 such that the rotation means 40 i.e. the outer handle 40, 42 can be vertically offset from the hook 110.

ITEMS

[0120]

1. A container door (10) for a waste container (120), the container door (10) comprising

- an inner side (12) and an outer side (14) having a hook (110);
- a locking mechanism (20) positioned on the inner side (12), the locking mechanism (20) comprising a transverse bar (30) rotatable around a transverse pivot axis (32), the transversal bar (30) being operational connected to the locking mechanism (20) for locking the door (10),
- means for rotation (40) of the transverse bar (30) extending from the transverse bar (30) to the outer side (14), wherein the means for rotation (40) are transversally offset relative to the hook (110).

2. A container door (10) according to item 1, wherein the hook (110) is symmetrically positioned.

3. A container door (10) according to item 1 or 2, wherein the means for rotation (40) of the transverse bar (30) being an outer handle (42) extending from the transverse bar (30) to the outer side (14), the outer handle (42) being pivotal between a first position (44) locking the container door (10) and a second position (46) unlocking the container door (10).

4. A container (120) comprising a container door (10) according to anyone of items 1-3.

5 Claims

1. A container door (10) for a waste container (120), the container door (10) comprising

- an inner side (12) for facing an inside of a container (120) and an outer side (14),
- a hook (110) positioned on the outer side (14),
- a locking mechanism (20) positioned on the inner side (12), the locking mechanism (20) comprising a transverse bar (30) rotatable around a transverse pivot axis (32), the transversal bar (30) being operational connected to the locking mechanism for locking the door (10),
- means for rotation (40) of the transverse bar (30) extending from the transverse bar (30) to the outer side (14),
- a gripper (50) positioned on the inner side (12), the gripper (50) being adapted for releasable preventing rotation of the transverse bar (30),
- a container aperture (90) enabling the gripper (50) to be controlled from the outer side (14).

2. The container door (10) according to claim 1, wherein the container door (10) comprises an inner handle (34) extending from the transverse bar (34) and the gripper (50) being positioned to grip the inner handle (34).

3. The container door (10) according to claim 2, wherein the gripper (50) comprises

- a C-shaped body (52) for receiving the inner handle (34),
- a block member (60) being rotatable around a block pivot axis (62) between a block position (80) preventing rotation of the inner handle (34) away from the C-shaped body (52) by blocking the inner handle (34) between the block member (60) and the C-shaped body (52), and a release position (82) allowing rotation of the inner handle (34) away from the C-shaped body (52).

4. The container door (10) according to claim 3, wherein the block member (60) comprises a block finger (64), and the block finger (64) being adapted to block the inner handle (34) when in the block position (80).

5. The container door (10) according to anyone of claims 3-4, wherein the block member (60) being rotationally connected to the C-shaped body (52).

6. The container door (10) according to anyone of claims 3-5, wherein the gripper (50) comprises

- a release member (70) being rotatable around a release pivot axis (72),
 - a biasing member (54) extending between the block member (60) and the releasing member (70), wherein the release member (70) being adapted prevent rotation of the block member (60) in the block position (80). 5
7. The container door (10) according to claim 6, wherein the block member (60) comprises a block thumb (66) extending towards the release member (70), and the release member (70) comprises a release pawl (74) extending towards the block member (60), wherein the block thumb (66) and the release pawl (74) are adapted to frictionally connect. 10 15
8. The container door (10) according to claim 6 or 7, wherein the release member (70) comprises a release finger (76) extending from the release member (70), the release finger (76) being positioned in front of the container aperture (90). 20
9. The container door (10) according to anyone of claims 1-8, wherein the container door (10) comprises a pin (92) being slideable positioned in the container aperture (90). 25
10. The container door (10) according to anyone of claims 1-9, wherein the container door (10) further comprises 30
- an aperture lock (100) on the outer side (14) controlling a lock pawl (102), the lock pawl (102) movable to and from a position between the container aperture (90) and the gripper (50). 35
11. The container door (10) according to claims 9 and 10, wherein the pin (92) comprises a pin recess (94) and the lock pawl (102) being adapted to engage the pin recess (94). 40
12. The container door (10) according to anyone of claims 1-11, wherein the release member (70) and the block member (50) are rotatable in a common plane. 45
13. The container door (10) according to anyone of claims 1 to 12, wherein the means for rotation (40) of the transverse bar (30) being an outer handle (42) extending from the transverse bar (30) to the outer side (14), the outer handle (42) being pivotal between a first position (44) locking the container door (10) and a second position (46) unlocking the container door (10). 50 55
14. A method for releasable securing a locking mechanism of a container door comprising
- an inner side for facing an inside of a container and an outer side,
 - a hook positioned on the outer side,
 - a locking mechanism positioned on the inner side, the locking mechanism comprising a transverse bar rotatable around a transverse pivot axis, the transversal bar being operational connected to the locking mechanism for locking the door,
 - means for rotation of the transverse bar extending from the transverse bar to the outer sides, the method comprising
 - an act of actuating a gripper through a container aperture in the container door; thereby causing the gripper to grip or release the transverse bar.
15. A container (120) comprising a container door (10) according to anyone of claims 1-13.

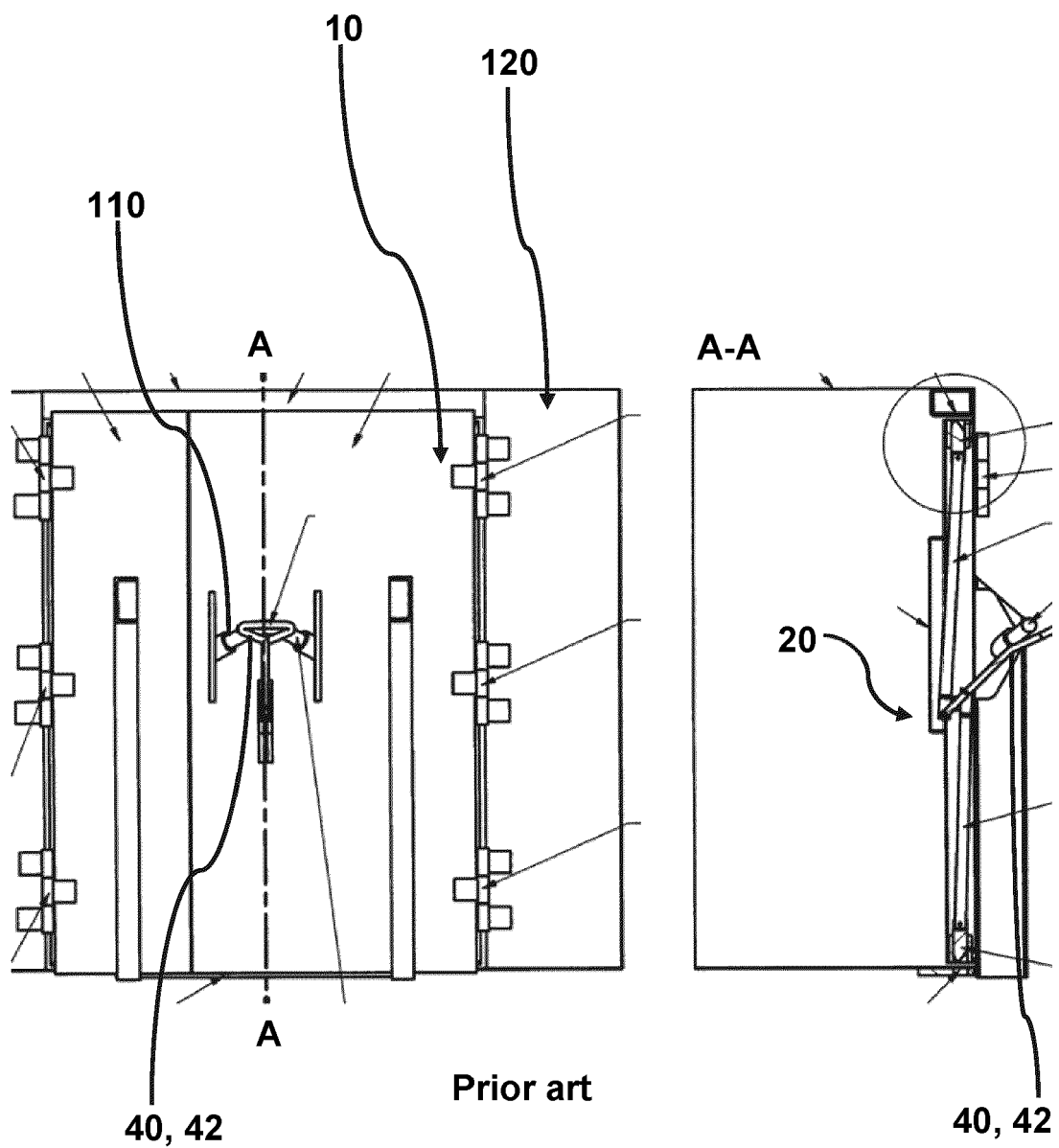


Fig. 1

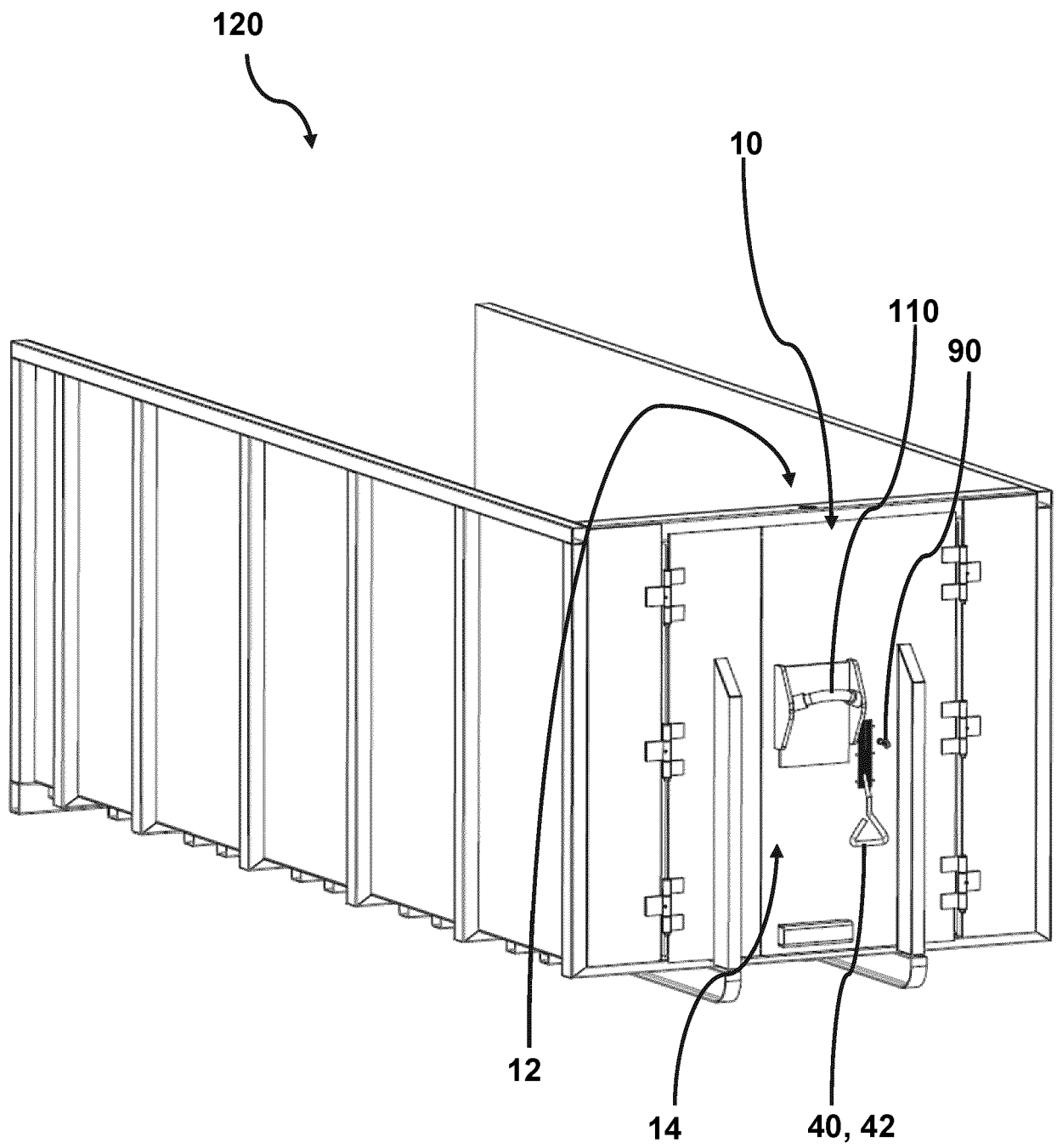


Fig. 2

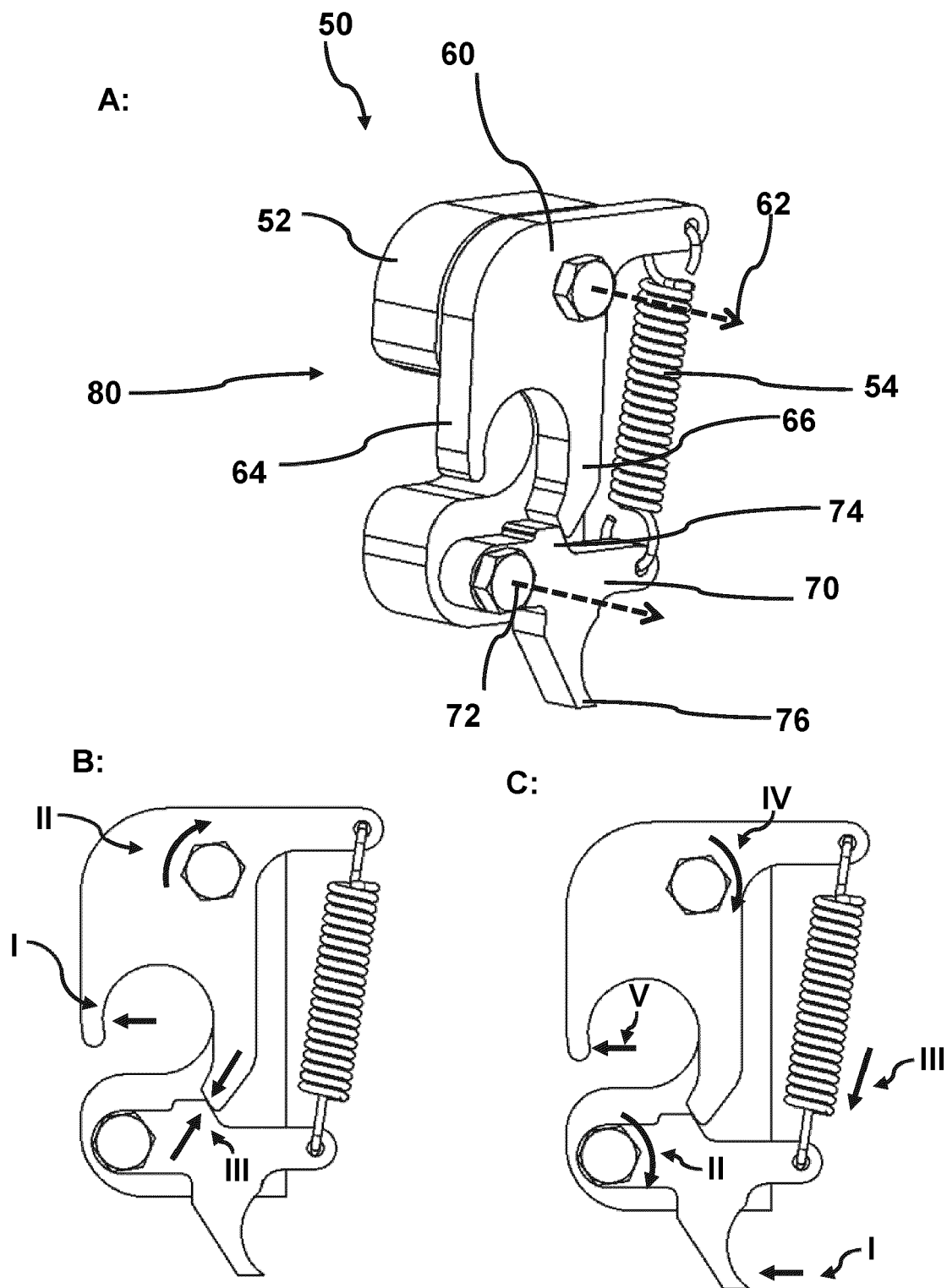


Fig. 3

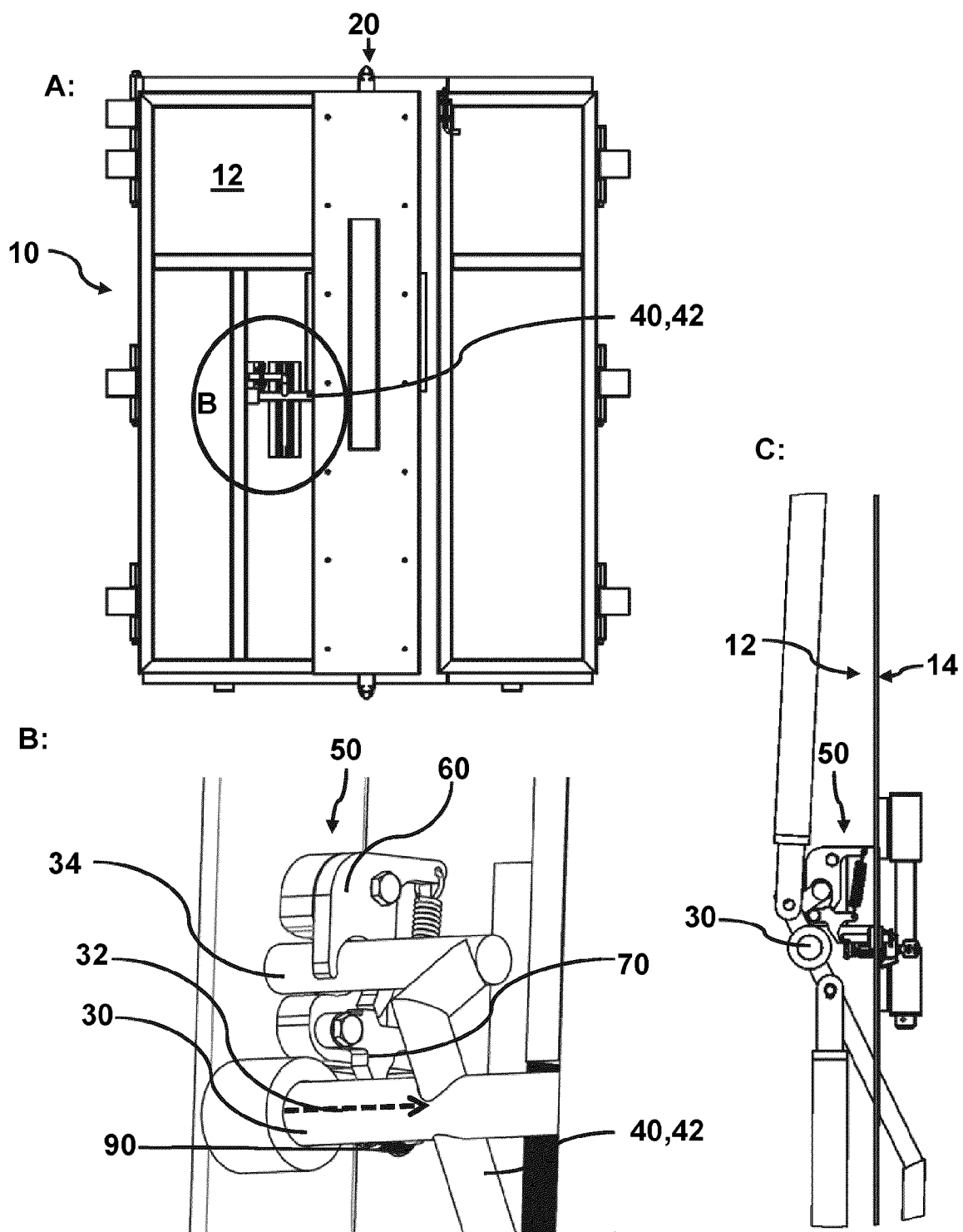


Fig. 4

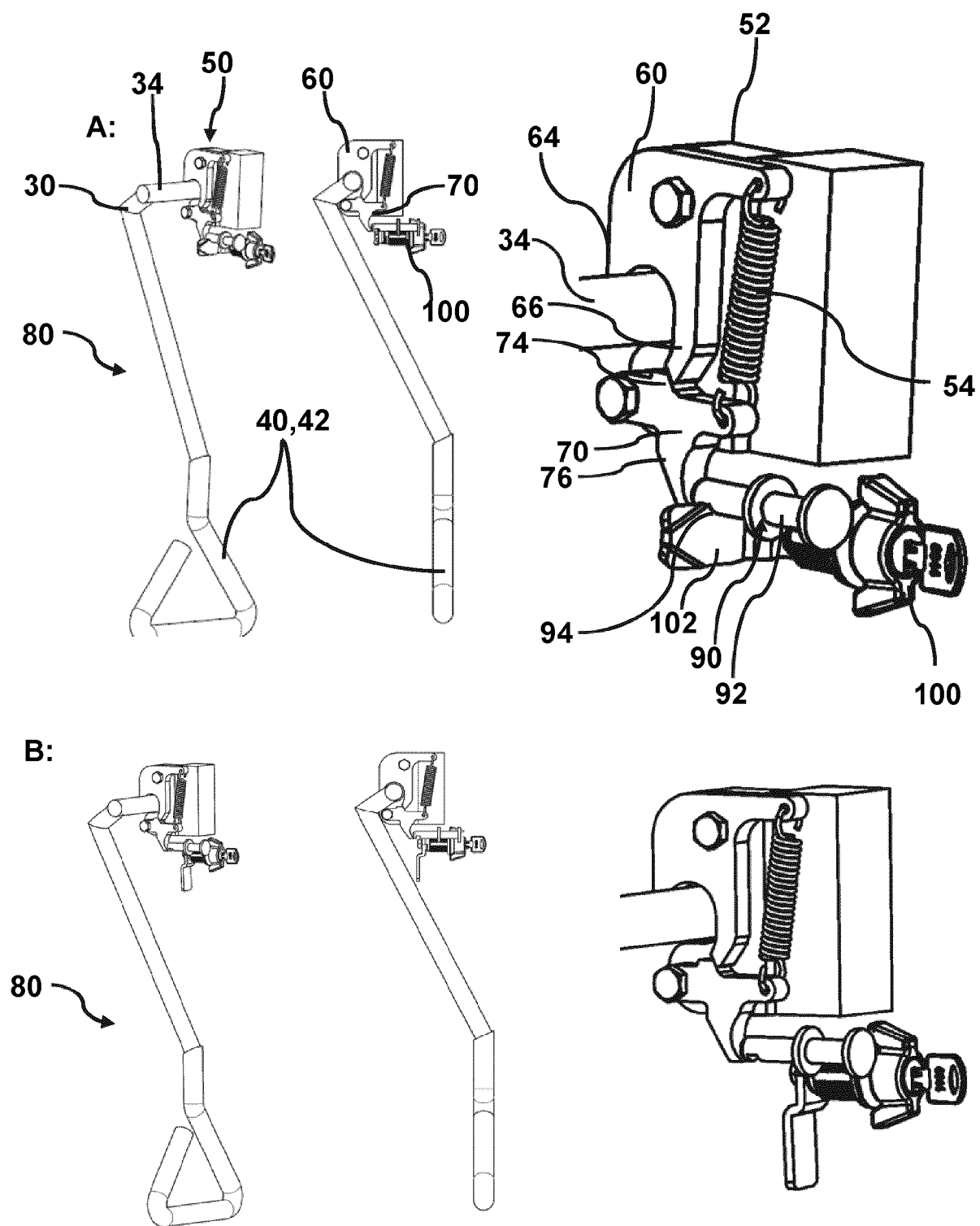


Fig. 5

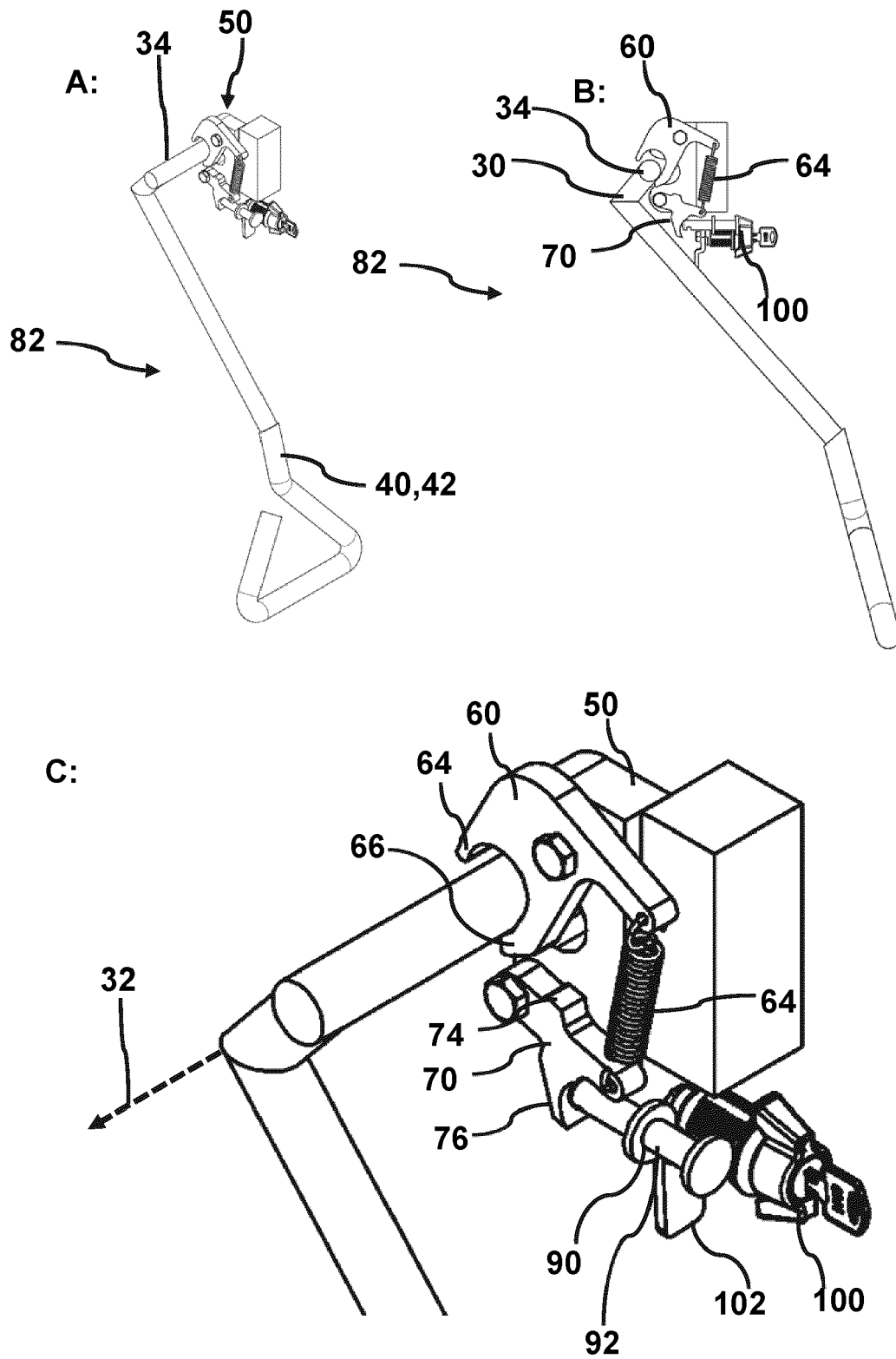


Fig. 6

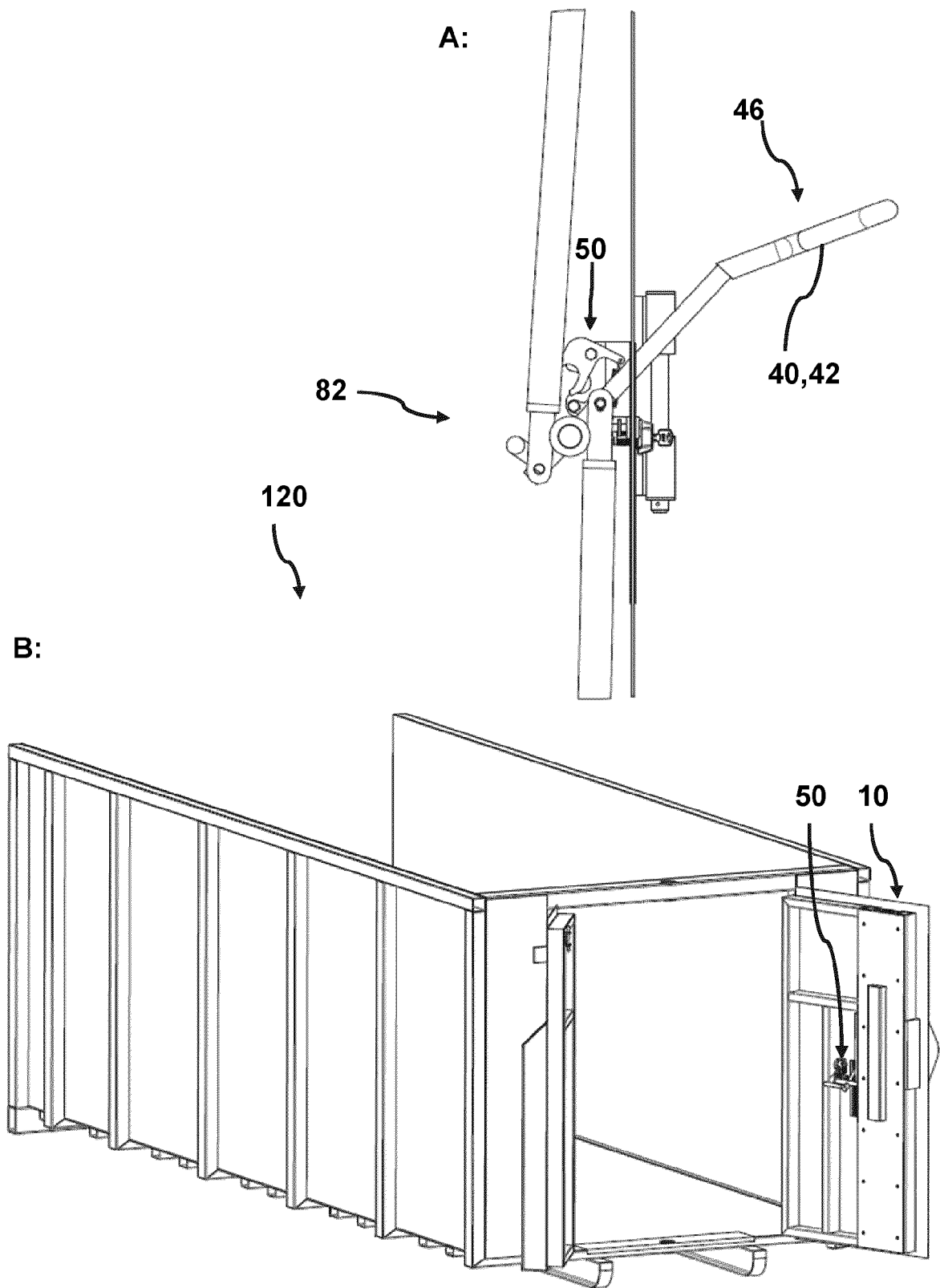


Fig. 7

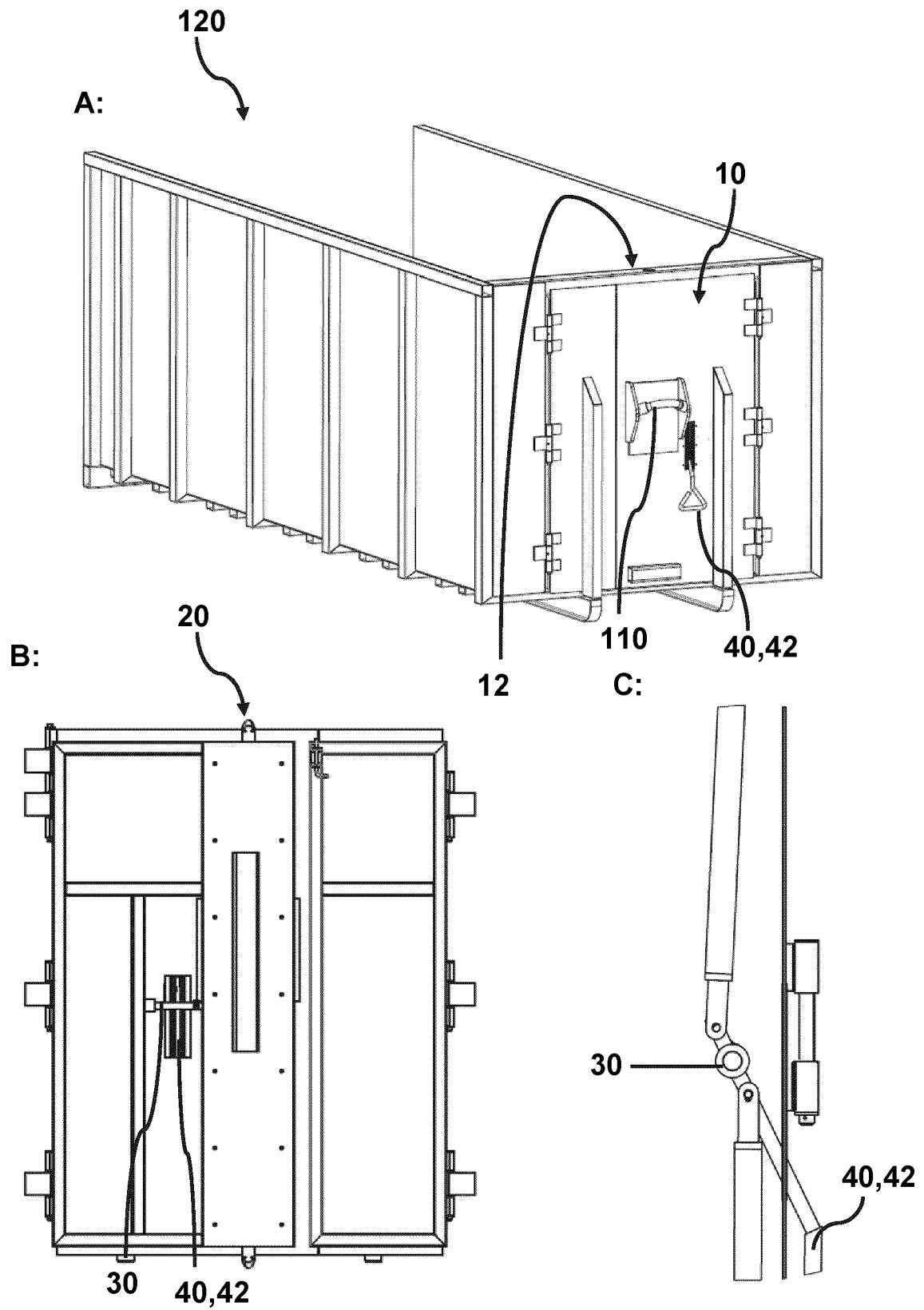


Fig. 8



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Place of search The Hague		Date of completion of the search 1 December 2020	Examiner Koster, Michael
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