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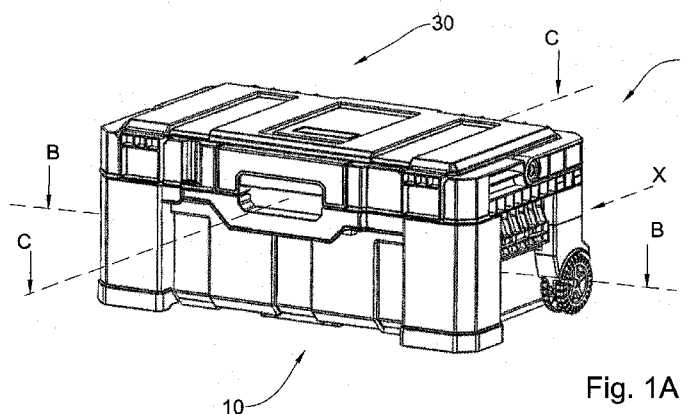


Fig. 1A

(57) Abstract: A toolbox comprising: a base member having base walls defining a base interior space; and a cover member having cover walls, said cover member being articulated to the base member by an articulation mechanism, the cover member being displaceable between a closed position in which the cover member extends over the base member, and an open position in which the cover member is displaced with respect to the base member so as to allow access to the base interior space. The cover member has at least one cover engagement element associated with at least one of the cover walls, and the base member having at least one base engagement element associated with at least one respective base wall and configured, in the closed position of the cover member, to engage the cover engagement element for arresting the cover member to the base member, so as to establish engagement between the cover member and the base member for transmitting between the cover member and the base member internal forces generated by external forces applied on at least one member of the toolbox, thereby substantially reducing or eliminating transmission of internal forces to the articulation mechanism.

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TOOLBOX

TECHNOLOGICAL FIELD

The presently disclosed subject matter relates to storage containers, and more particularly to toolboxes.

BACKGROUND

Toolboxes and the other similar containers are commonly used in a variety of fields, such as construction, repairs, etc., to store and to transport tools to and from a jobsite or between locations at a jobsite.

Such containers are typically made from plastic or metal, and may be reinforced. In addition, they may comprise a base portion having a cavity to store therewithin tools, and a cover articulated thereto. Locking means are often provided so that the contents do not spill during transport.

Toolboxes are used primarily by specialized technicians, such as machinist, electricians, and carpenters etc, or by an average user for small repairs at home. Typically, the user of a toolbox carries the toolbox to places outside his workshop, and thus must have all the necessary tools available therein. However, since frequently the toolbox contains a large verity of tools, searching for the right tool might be time consuming, and doing so while working might be quite frustrating. Thus, toolboxes typically are formed with a plurality of compartments, each having a different size and shape adapted to hold certain tools and supplies, and configured for convenient access.

GENERAL DESCRIPTION

According to one aspect of the presently disclosed subject matter, there is provided a toolbox comprising:

- a base member having base walls defining a base interior space; and

- a cover member having cover walls, said cover member being articulated to the base member by an articulation mechanism, the cover member being displaceable between a closed position in which the cover member extends over the base member,

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and an open position in which the cover member is displaced with respect to the base member so as to allow access to the base interior space;

the cover member having at least one cover engagement element associated with at least one of the cover walls, and the base member having at least one base engagement element associated with at least one respective base wall and configured, in the closed position of the cover member, to engage the cover engagement element for arresting the cover member to the base member, so as to establish engagement between the cover member and the base member for transmitting between the cover member and the base member internal forces generated by external forces applied on at least one member of the toolbox, thereby substantially reducing or eliminating transmission of internal forces to the articulation mechanism.

The arrangement of the toolbox can be such that in the closed position of the cover member, the articulation mechanism substantially does not bear any loads.

The term '**external forces**' refers hereinafter to forces which can be applied to one or more members of the toolbox from its outside. The external forces can be, for example, gravity forces, pulling forces or pushing forces. The external forces can be applied on the cover member or on the base member when the toolbox is lifted, pushed, pulled, or transported from place to place (e.g., by gripping a handle connected to the cover member) in the closed position of the cover member.

The term '**internal forces**' refers hereinafter to forces which can be applied between the components of the toolbox upon application of external forces thereon. The internal forces can be, for example, shear forces, tension forces, compression forces and torsion forces. According to a particular example, the internal forces are shear forces applied between the elements of the articulation mechanism, between the base member and the articulation mechanism, or between the articulation mechanism and the cover member. These shear forces may have a vertical vector component. Since these shear forces may cause structural deformation of the articulation mechanism and impair its function, they should be reduced or eliminated.

It is appreciated that the base member is not necessarily the lowermost member of the toolbox and that other members of the toolbox can be disposed under the base member.

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It is also appreciated that the cover member is not necessarily the uppermost member of the toolbox and that other members of the toolbox can be disposed above the cover member.

In order to reduce or eliminate application of internal forces to the slide mechanism, the cover engagement element and the base engagement element of the presently disclosed subject matter, which, according to one example, constitute portions of the cover member and the base member, are configured to engage each other upon displacement of the cover member to its closed position, thereby establishing engagement between the cover member and the base member. This engagement allows directly transmitting between the base member and the cover member internal forces generated by external forces applied on the base member or the cover member, and thereby transmitting these internal forces from the cover member to the base member, and respectively reducing or eliminating transmission of the internal forces to the articulation mechanism.

The articulation mechanism can be any mechanism which connects two members of a toolbox and allows linear or radial displacement of these members with respect to each other. This displacement can be, for example, a sliding displacement or a pivotal displacement.

According to one example, the articulation mechanism is a slide mechanism. According to other examples, the articulation mechanism is a hinged mechanism or a cantilever mechanism.

The base walls can include a front base wall, an opposing rear base wall and base sidewalls. The base walls can extend from a base bottom to a base rim, defining together the base interior space.

The cover walls can include a front cover wall, an opposing rear cover wall and cover sidewalls. The cover walls can extend from a cover top to a cover bottom, and defining together a cover interior space.

The cover engagement element can be configured for engaging the base engagement element in a spontaneous and automatic manner upon displacement of the cover member from its open position to its closed position.

Engagement between the base engagement element and the cover engagement element can be accompanied by horizontal displacement of the cover engagement element with respect to the base member.

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The cover engagement element can be a protrusion extending from one of the cover member and the base member, and the base engagement element can be an opening formed in the other one of the cover member and the base member.

The cover engagement element can also be protrusion extending from each one of the cover member and the base member, and the base engagement element can be an opening formed in each one of the cover member and the base member, so that the opening is configured to receive its respective protrusion.

The cover engagement element can be a cover protruding member extending from the cover member, and the base engagement element can be a base wall opening formed within the respective base wall, and configured for receiving and accommodating the cover protruding member therein.

The base wall opening can have a downwardly engaging surface, and the cover protruding member can have an upwardly engaging surface, so that in the closed position of the cover member, the downwardly engaging surface rests on the upwardly engaging surface, thereby establishing the engagement between the cover member and the base member.

The toolbox can further comprise at least one cover sidewall extension configured with the cover engagement element.

The cover engagement element can extend from the cover sidewall extension.

The cover sidewall extension can extend from the cover bottom substantially parallel to the cover sidewall.

Alternatively, the cover sidewall extension can extend from its respective cover sidewall.

The articulation mechanism can comprise at least one slide arrangement configured with a first slide member mounted to one of the base sidewalls and a second slide member mounted to the respective cover sidewall and slidably secured to the first slide member.

The second slide member can be mounted to the cover sidewall extension, and particularly, to an internal surface thereof.

The slide arrangement can be configured with a telescopic arrangement having an intermediate slide member slidably disposed between the first and the second slide members.

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The intermediate slide member is configured for allowing full displacement of the cover member with respect to the base member at the open position of the cover member, to thereby facilitate full access to the base interior space.

For example, the toolbox can comprise two telescopic slide arrangements, each being associated with its corresponding cover sidewall and base sidewall.

The cover engagement element and the base engagement element can be disposed in proximity to the articulation mechanism.

The cover engagement element can be oriented parallel to the articulation mechanism.

Each of the base sidewalls can comprise an internal base sidewall, an external base sidewall parallel to the internal base sidewall, and an intermediate base sidewall spaced between and perpendicular to the internal and external base sidewalls. The internal base sidewall, the front base wall, the rear base wall and the base bottom can define together the base interior space.

The base wall opening can be formed within the intermediate base sidewall so as to face the cover engagement element.

The internal base sidewall can have an external sidewall surface along and in proximity to which the cover sidewall extension is configured to be displaced between the closed position and the open position of the cover member.

The first slide member can be mounted to the external sidewall surface of the internal base sidewall.

The external sidewall surface can have a supporting shelf protruding therefrom and the first slide member can be disposed above and adjacent to the supporting shelf, so as to allow the supporting shelf supporting to the first slide member in the closed position of the cover member.

The first slide member can pass through the base wall opening between and in proximity to the upper and lower edges thereof.

The toolbox can further comprise a wheeling arrangement mounted to the cover member for locomotion of the cover member with respect to the base member between its closed position and its open position.

The wheeling arrangement can comprise two wheels, each associated with its corresponding cover side.

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The cover member can be configured with two detachably attachable cover legs, each having a first end configured to be connected to the cover bottom and a second end configured for carrying the respective wheel.

The base member can be configured with two detachably attachable base legs, each having a first end configured to be connected to the base bottom and a second end configured to be positioned on a surface on which the toolbox is disposed.

The base legs and the cover legs can be replaced with other base legs and cover legs in accordance with the required distance of the base bottom from the surface on which the toolbox is to be disposed.

The toolbox can comprise a handle mounted to the cover member for transporting the toolbox and/or for displacing the cover member between its closed and open positions.

The handle can be pivotally connected to the cover member and displaceable between a deployed position in which one side of the handle lies on the cover member and an extended position in which the one side of the handle is disengaged from the cover member.

The handle can be configured with a telescopic mechanism configured for changing the length of the handle.

The cover member can be further configured with a cover pivotally articulated thereto for respectively allowing and preventing access to the cover interior space. The cover can be configured with at least one cover latch configured, in the closed position of the cover member, to be received in a corresponding recess formed within the base rim for securing the cover to the cover rim in this position.

The toolbox can further comprise at least one latch assembly for locking engagement of the cover member to the base member in the closed position of the cover member.

The latch assembly can be a detachably attachable member.

The latch assembly can be attached to the cover member at the front cover wall.

The front cover wall can have two side channels configured to receive two respective elongate side members of the latch assembly for attaching the latch assembly to the front cover wall.

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The latch assembly can have at least one normally closed cover member latch configured to be received within a corresponding at least one base member recess formed within the base rim.

The cover member latch can be displaceable along a vertical axis oriented along the plane of the front cover wall.

BRIEF DESCRIPTION OF THE DRAWINGS

In order to better understand the subject matter that is disclosed herein and to exemplify how it may be carried out in practice, embodiments will now be described, by way of non-limiting examples only, with reference to the accompanying drawings, in which:

Fig. 1A is a front isometric view of a toolbox in its closed position, in accordance with one example of the presently disclosed subject matter;

Fig. 1B is a rear isometric view of the toolbox of **Fig. 1A**;

Fig. 1C is the toolbox of **Fig. 1A** with its handle at an upright position;

Fig. 2A is a front isometric view of a base member of the toolbox of **Fig. 1A**;

Fig. 2B is a rear isometric view of the base member of **Fig. 2A**;

Fig. 2C is a horizontal cross-sectional view along line A-A in **Fig. 2B**;

Fig. 2D is the base member of **Fig. 2A** with a respective member of an articulation mechanism;

Fig. 2E is an enlarged view of portion A₁ of **Fig. 2D**;

Fig. 2F is an enlarged view of portion A₅ of **Fig. 2B**;

Fig. 3A is a front isometric view of the cover member of the toolbox of **Fig. 1A**;

Fig. 3B is a bottom isometric view of the cover member of **Fig. 3A**;

Fig. 4A is a vertical cross-sectional view along line B-B in **Fig. 1A**;

Fig. 4B is an enlarged view of portion A₂ of **Fig. 4A**;

Fig. 4C is a rear isometric view of the toolbox of **Fig. 1B** with the cover member removed therefrom;

Fig. 4D is an enlarged view of portion A₃ of **Fig. 4C**;

Fig. 5A is a front isometric view of the toolbox of **Fig. 1A** in its open position;

Fig. 5B is a rear isometric view of the toolbox of **Fig. 5A**;

Fig. 5C is the toolbox of **Fig. 5A** with its cover being opened;

Fig. 6 is a partial exploded view of the cover member of the toolbox of **Fig. 2A**;

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Fig. 7A is a vertical cross-sectional view along line C-C in **Fig. 1A**; and
Fig. 7B is an enlarged view of portion A₆ of **Fig. 7A**;

DETAILED DESCRIPTION OF EMBODIMENTS

Attention is first directed to Figs. 1A to 1C and 5A to 5C of the drawings illustrating a toolbox in accordance with one example of the presently disclosed subject matter, generally designated **1**. The toolbox **1** comprises a base member **10** and a cover member **30** articulated thereto.

The cover member **30** is slidably displaceable with respect to the base member **10** along a horizontal axis **X** between a closed position (shown in Figs. 1A to 1C) in which the cover member **30** is disposed above the base member **10** and an open position (shown in Fig. 5A to 5C) in which the cover member **30** is displaced with respect to the base member **10**. The cover member **30** is configured with a wheeling arrangement **60** mounted thereto. The wheeling arrangement **60** is configured for locomotion of the cover member **30** with respect to the base member **10** between its closed position and its open position, and for providing support to the toolbox **1** in the open position of the cover member **30**.

The base member **10** and the cover member **30** are articulated to each other by an articulation mechanism in the form of slide mechanism constituted by two telescoping slide arrangements, i.e., a right slide arrangement and a left slide arrangement, each disposed at a respective side of the toolbox **1**. The left slide arrangement is illustrated in Figs. 5A and 5B, and generally designated **50**.

As shown in Figs. 5A and 5B, the left slide arrangement **50** includes a first slide member **52** fixed to the base member **10**, a second slide member **54** fixed to the cover member **30** and an intermediate slide member **56** slidably disposed between the first slide member **52** and the second slide member **54**. During displacement of the cover member **30** between its closed position and its open position, the intermediate slide member **56** is configured to slide within the first slide member **52**, and the second slide member **54** is configured to slide within the intermediate slide member **56**.

The provision of the intermediate slide member **56** between the first slide member **52** and the second slide member **54** allows full displacement of the cover

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member **30** with respect to the base member **10** at the open position of the cover member **30**, to thereby facilitate full access to the interior of the base member **10**.

The cover member **30** further has a handle **60** pivotally connected thereto. The handle **60** can be used for transporting the toolbox **1** from place to place by pulling or lifting the toolbox and/or for displacing the cover member **30** between its closed and open positions.

The handle **60** is displaceable between a deployed position (shown in Figs. 1A, 1B, and 5A to 5D) in which one side of the handle lies on a cover rim **42** and an extended position in which said one side of the handle **60** is disengaged from the cover rim **42** and is ready to be gripped by a user.

The cover member **30** has two cover engagement elements constituted by right and left cover protruding members **48b** and **49b** (shown for example in Fig. 3B). The base member has two base engagement elements constituted by right and left base wall openings, each of which corresponds to its cover protruding member. The left base wall opening is shown, for example, in Fig 2E, and generally designated **19**, while the right base wall opening is not seen in the drawings.

Upon slidable displacement of the cover member **30** to its closed position, the right and left cover protruding members **48b** and **49b** are configured to automatically be introduced into their respective base wall openings for arresting the cover member **30** to the base member **10**, so as to establish engagement therebetween. The engagement between the cover member **30** and the base member **10** allows directly transmitting to the cover member **30** internal forces generated by external forces being applied on the base member **10** or directly transmitting to the base member **10** internal forces generated by external forces being applied on the cover member **30**, thereby substantially reducing or eliminating transmission of internal forces to the slide mechanism.

As shown in Fig. 1C, an example of an external force which may be applied on the cover member **30** is a vertically directed pulling force **F** along a vertical axis **Y**, which can be applied on the cover member **30** by a user that grips the handle **60** and lifts the toolbox **1**. The pulling force **F** produces internal forces within the toolbox **1** and particularly between the cover member **30** and the base member **10**. If no engagement between the cover member **30** and the base member **10** was provided by the first and the second support members of the presently disclosed subject matter, these internal forces

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could include, for example, shear forces **S** (shown in Fig. 1C) which could be associated with the slide mechanism. In particular, the shear forces **S** could be generated between the elements of the slide mechanism, between the base member **10** and the slide mechanism, or between the slide mechanism and the cover member **30**.

Due to the provision of the right and left cover protruding members **48b** and **49b** and the right and left base wall openings which engage each other and thereby establish engagement between the cover member **30** and the base member **10**, the shear forces **S** are reduced or eliminated with respect to the slide mechanism. As a result of that, the internal forces that are produced within the toolbox **1** are transmitted directly between the cover member **30** and the base member **10**, and not via the slide mechanism.

Reference is now made Figs. 2A to 2F, in which different views of the base member **10** are illustrated. The base member **10** has a front base wall **12**, an opposing rear base wall **14**, a right base sidewall **16** and a left base sidewall **18**. The front base wall **12**, the rear base wall **14** and the base right and left sidewall **16** and **18** extend from a base bottom **20** to a base rim **22**, and define together a base interior space **24**. The base interior space **24** is configured to accommodate various tools and goods.

As shown in Figs. 2B, 2D and 2F, the base rim **22** has a first recess **22a** and a second recess **22b**, the details of which are described below.

Description is now made particularly with respect to the left base sidewall **18** which is shown in a detailed manner in Figs. 2A to 2E. Due to the symmetrical structure of the toolbox **1**, this description is also relevant for the right base sidewall **16** which is symmetrical to that of left base sidewall **18**.

The left base sidewall **18** has an internal base sidewall **18a**, an external base sidewall **18c** spaced apart from the internal base sidewall **18a** and parallel thereto, and an intermediate base sidewall **18b** disposed between the internal base sidewall **18a** and the external base sidewall **18c** and perpendicularly to them.

The internal base sidewall **18a** constitutes a sidewall of the base interior space **24**. The internal base sidewall **18a**, the intermediate base sidewall **18b** and the external base sidewall **18c** define a sidewall interior space **18d** (shown in Fig. 2C). The base wall opening **19** is formed in the intermediate base sidewall **18b** so as to provide access to the sidewall interior space **18d**. The base wall opening **19** has a lower edge **19a** and a downwardly engaging surface in the form of an upper edge **19b**.

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The internal base sidewall **18a** has an external sidewall surface **18e** to which the first slide member **52** is mounted. The external sidewall surface **18e** has an elongated supporting shelf **18f** protruding therefrom. The first slide member **52** is disposed above the supporting shelf **18f** and adjacent thereto. As shown in Figs. 2D and 2E, first slide member **52** is mounted to the base member **10** while passing through the base wall opening **19** between and adjacent to the lower edge **19a** and the upper edge **19b**.

In the open position of the cover member **30**, the first slide member **52** is configured to rest on the lower edge **19a** and on the supporting shelf **18f**, and thereby being supported by these elements.

As shown in Figs. 2A and 2B, the base member **10** is further configured with two detachably attachable base legs: a right base leg **11a** and a left base leg **11b**, each having a first end **11c** and **11d** configured to be connected to the base bottom **20** and a second end **11e** and **11f** configured to be positioned on a surface on which the toolbox **1** is disposed.

Reference is now made Figs. 3A and 3B, in two different views of the cover member **30** are illustrated. The cover member **30** has a front cover wall **32**, an opposing rear cover wall **34** (shown in Fig. 1B), a cover right sidewall **36** and a cover left sidewall **38**. The front cover wall **32**, the rear cover wall **34** and the cover right and left sidewall **36** and **38** extend from a cover bottom **40** to the cover rim **42**, and define together a cover interior space **44** (shown in Fig. 5C). The cover interior space **44** is configured to accommodate various tools and goods.

The cover member **30** has a cover **46** pivotally articulated the cover rim **42** and displaceable between a closed state and an open state, for respectively preventing and allowing access to the cover interior space **44**. In Fig. 3A the cover member **46** is presented in its closed state, and in Fig. 5C the cover is presented in its open state. The cover **46** has a first cover latch **47a** and a second cover latch **47b**, the entire structure of which can be seen in Fig. 5C.

The first cover latch **47a** has a first shoulder **47c** which is configured to be received under a restricting portion **23c** of the first recess **22a** upon displacement of the cover member from its open to its closed position when the cover **46** is disposed in its closed state. This engagement of the first shoulder **47c** with the restricting portion **23c** arrests the first cover latch **47a** within the first recess **22a**, and thereby secures the cover

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46 to the cover rim **42** in the closed position of the cover member **30**. The second cover latch **47b** is configured to engage the second recess **22b** in a similar manner.

As shown in Figs. 3A and 3B, the cover member **30** further comprises a right cover sidewall extension **48a** and a left cover sidewall extension **49a** associated the right and the left cover sidewalls **36** and **38**, respectively. The right and the left cover sidewall extensions **48a** and **49a** extend downwardly from the cover bottom **40**, substantially under and in parallel to the right and the left cover sidewalls **36** and **38**, respectively.

The right cover sidewall extension **48a** is configured with the above mentioned right cover protruding member **48b** protruding therefrom in the direction of the axis **X**, and the left cover sidewall extension **49a** is configured with the above mentioned left cover protruding member **49b** protruding therefrom in the same direction. The right the left cover sidewall extensions **48a** and **49a** and their respective right and left cover protruding members **48b** and **49b** constitute integral portions of the cover member **30**.

Description is now made particularly with respect to the left cover sidewall extension **49a** and its respective left cover protruding member **49b**. Due to the symmetrical structure of the toolbox **1**, this description is also relevant for the cover sidewall extension **48a** and its respective right cover protruding member **48b** the structure of which is symmetrical to that of the left cover sidewall extension **49a** and its respective left cover protruding member **49b**.

As mentioned above, upon displacement of the cover member **30** to its close position, the left cover protruding member **49b** is automatically introduced into the base wall opening **19**, thereby establishing engagement between the cover member **30** and the base member **10**.

Upon application of the above mentioned pulling force **F**, the upper edge **19b** of the base wall opening **19** is configured to rest on the left cover protruding member **49b** that constitutes an upwardly engaging surface, thereby transmitting internal forces between the base member **10** and the cover member **30**, and respectively minimizing transmission of the internal forces to the left slide arrangement **50**.

The cover member **30** further has two detachably attachable legs: a right cover leg **70a** and a left cover leg **70b**, each of which is attachable to a corresponding connecting element **41a** and **41b** extending from the cover bottom **40**. Each of the right and left legs **70a** and **70b** has a first end **71a** and **71b**, and a second end **72a** and **72b**.

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The first ends **71a** and **71b** are introduced into the connecting elements **41a** and **41b**, respectively. The wheeling arrangement **60** includes two wheels: a right wheel **61a** and a left wheel **61b**. The second ends **72a** and **72b** are carrying the right and left wheels **61a** and **62a**, respectively.

The base legs **11a** and **11b** and the cover legs **70a** and **70b** together with their wheels **61a** and **61b** have one length. These legs and cover legs together with their wheels can be replaced with other base legs **11a** and **11b** and other cover legs **70a** and **70b** together with their wheels **61a** and **61b** in accordance with the required distance of the base bottom **20** from the surface on which the toolbox **1** is to be disposed.

Reference is now made to Figs. 4A to 4D, to describe in a detailed manner the engagement between the left cover protruding member **49b** and the base wall opening **19** in the closed position of the cover member **30**.

Figs. 4A and 4B illustrate a cross-sectional view along line **B-B** of Fig. 1A, and particularly a cross-sectional view of the sidewall interior space **18d** along the same line. According to these figures, the first slide member **52** is adjacent to the external sidewall surface **18e**, the intermediate slide member **56** is disposed within the first slide member **52**, and the second slide member **54** is disposed within the intermediate slide member **56**. Moreover, these figures illustrate the manner according to which the left slide arrangement **50** and the left cover protruding member **49b** are received within the base wall opening **19**, and in particular, between the lower edge **19a** and the upper edge **19b**. The first slide member **52** engages the lower edge **19a** and the upper edge **19b**, and the left cover protruding member **49b** engages only the upper edge **19b**, while there is no engagement between the left cover protruding member **49b** and the lower edge **19a**.

As explained above, the engagement between the first slide member **52** and the lower edge **19a** can allow the lower edge **19a** to provide support to the first slide member **52**, in the open position of the cover member **30**.

Figs. 4C and 4D illustrate the toolbox **1** in the closed position of the cover member **30**, while the cover member **30** is not shown for explanation purposes. In these figures the base wall opening **19** together with its upper and lower edges **19a** and **19b** can be clearly seen. In particular, Fig. 4D illustrates the location into which the left cover protruding member **49b** can be introduced in the closed position of the cover member **30**.

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Figs. 4C and 4D further illustrate the second slide member **54** with its slide fixing members **54a** and **54b** which are configured for engaging corresponding cover fixing members **49d** and **49e** for fixing the second slide member **54** to the cover member **30**.

Reference is now made to Figs. 6, 7A and 7B in which a latch assembly **80** of the toolbox **1** is illustrated. The latch assembly **80** is configured for locking engagement of the cover member **30** to the base member **10** in the closed position of the cover member **30**.

As shown in Fig 6, the latch assembly **80** is a detachably attachable member which is configured to be attached to the front cover wall **32** of the cover member **30**. In particular, the latch assembly **80** has two elongate side members, one of which is a side member **81a** (shown in Fig. 6). The side members are configured to engage two respective side channels formed within the front cover wall **32**, one of which is a side channel **32a** (shown in Fig. 6). The side members are configured to slide within the side channels, thereby attaching the latch assembly **80** to the cover member **30**.

As shown in Fig. 6, the latch assembly **80** has a cover member latch **82** which is seated on a compression spring (not shown) within a housing **83**. The cover member latch **82** is normally disposed at a downwardly biased closed position. The cover member latch **82** has two latches **82a** and **82b** and an actuating portion **82c**.

Reference is now made additionally to Fig. 2B in which two base member recesses **22c** and **22d** which are formed within the front base wall **12** are illustrated. The base member recess **22c** is configured to vertically receive the latch **82a** and the base member recess **22d** is configured to vertically receive the latch **82b**. When the latches **82a** and **82b** are received within the base member recesses **22c** and **22d**, the cover member **30** is locked at its closed position. In order to unlock the cover member **30** from this position, the user has to apply an upwardly directed force on the actuating portion **82c**, thereby vertically ejecting the latches **82a** and **82b** from the respective base member recesses **22c** and **22d** and consequentially allowing displacement of the cover member **30** to its open position. Figs. 7A and 7B, illustrate a cross-sectional view in which it is shown how the latch **82b** is received within the base member recess **22d**. In these figures it can also be seen that displacement of the latch **82b** (and the latch **82a**) along a distance **D₁**, ejects the latch **82b** from the base member recess **22d** (and the latch

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82a from the base member recess **22c**), thereby unlocking the cover member **30** from its closed position.

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CLAIMS:

1. A toolbox comprising:

a base member having base walls defining a base interior space; and

a cover member having cover walls, said cover member being articulated to the base member by an articulation mechanism, the cover member being displaceable between a closed position in which the cover member extends over the base member, and an open position in which the cover member is displaced with respect to the base member so as to allow access to the base interior space;

the cover member having at least one cover engagement element associated with at least one of the cover walls, and the base member having at least one base engagement element associated with at least one respective base wall and configured, in the closed position of the cover member, to engage the cover engagement element for arresting the cover member to the base member, so as to establish engagement between the cover member and the base member for directly transmitting between the cover member and the base member internal forces generated by external forces applied on at least one member of the toolbox, thereby substantially reducing or eliminating transmission of internal forces to the articulation mechanism.

2. A toolbox according to Claim 1, wherein the base walls comprise a front base wall, an opposing rear base wall and base sidewalls; said base walls extending from a base bottom to a base rim, defining together the base interior space; and wherein the cover walls comprise a front cover wall, an opposing rear cover wall and cover sidewalls; said cover walls extending from a cover top to a cover bottom, and defining together a cover interior space.

3. A toolbox according to Claim 1 or 2, wherein the cover engagement element is a protrusion extending from one of the cover member and the base member, and the base engagement element is an opening formed in the other one of the cover member and the base member.

4. A toolbox according to Claim 3, wherein the cover engagement element is a cover protruding member extending from the cover member, and the base engagement element is a base wall opening formed within the respective base wall, and configured for receiving and accommodating the cover protruding member therein.

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5. A toolbox according to Claim 4, wherein the base wall opening has a lower edge and an upper edge which is configured to rest on the cover protruding member in the closed position of the cover member, thereby establishing the engagement between the cover member and the base member.
6. A toolbox according to any one of the preceding claims, further comprising at least one cover sidewall extension configured with the cover engagement element.
7. A toolbox according to Claim 6, wherein the cover engagement element extends from the cover sidewall extension.
8. A toolbox according to Claim 6 or 7, when dependent on Claim 2, wherein the cover sidewall extension extends from the cover bottom substantially parallel to the cover sidewall.
9. A toolbox according to any one of the preceding claims, wherein the articulation mechanism is a slide mechanism that comprises at least one slide arrangement configured with a first slide member mounted to one of the base sidewalls and a second slide member mounted to the respective cover sidewall and slidably secured to the first slide member.
10. A toolbox according to Claim 9, when dependent on Claim 6, wherein the second slide member is mounted to the cover sidewall extension.
11. A toolbox according to Claim 9 or 10, wherein the slide arrangement is a telescopic arrangement configured with an intermediate slide member slidably disposed between the first and the second slide members.
12. A toolbox according to Claim 11, wherein the intermediate slide member is configured for allowing full displacement of the cover member with respect to the base member at the open position of the cover member, to thereby facilitate full access to the base interior space.
13. A toolbox according to any one of the preceding claims, wherein the first and the base engagement elements are disposed in proximity to the slide arrangement.
14. A toolbox according to any one of the preceding claims, wherein the cover engagement element is oriented in parallel to the articulation arrangement.
15. A toolbox according to any one of Claim 2 to 14, when dependent on Claim 2, wherein each of the base sidewalls comprises an internal base sidewall, an external base sidewall parallel to the internal base sidewall, and an intermediate base sidewall spaced between and perpendicular to the internal and external base sidewalls; the internal base

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sidewall, the front base wall, the rear base wall and the base bottom can define together the base interior space.

16. A toolbox according to Claim 15, when dependent on Claim 4, wherein the base wall opening is formed within the intermediate base sidewall so as to face the cover engagement element.

17. A toolbox according to Claim 15 or 16, wherein the internal base sidewall has an external sidewall surface along and in proximity to which the cover sidewall extension is configured to be displaced between the closed position and the open position of the cover member.

18. A toolbox according to Claim 17, when dependent on Claim 9, wherein the first slide member is mounted to the external sidewall surface of the internal base sidewall.

19. A toolbox according to Claim 18, wherein the external sidewall surface has a supporting shelf protruding therefrom and the first slide member is disposed above and adjacent to the supporting shelf, so as to allow the supporting shelf supporting to the first slide member in the closed position of the cover member.

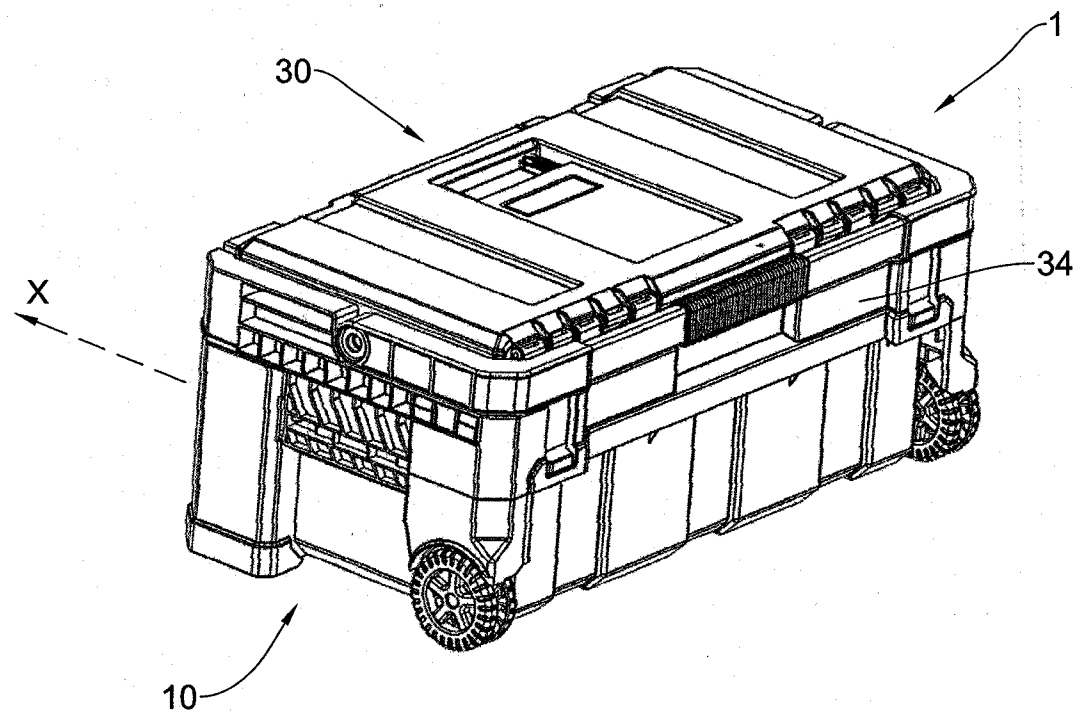
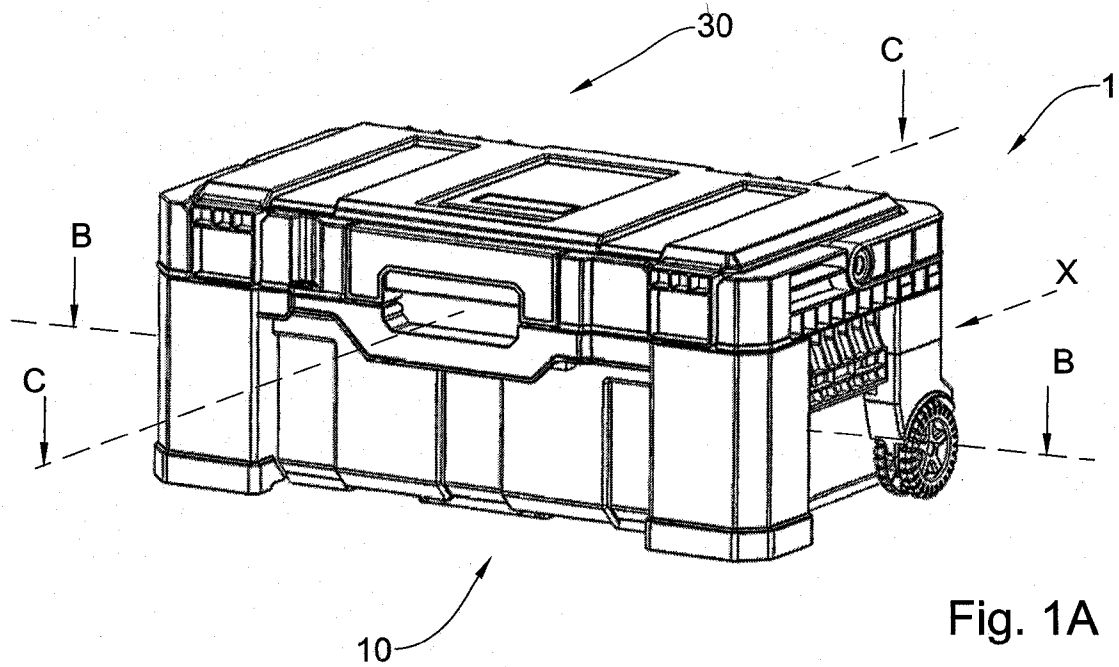
20. A toolbox according to any one of the preceding claims, further comprising a wheeling arrangement mounted to the cover member for locomotion of the cover member with respect to the base member between its closed position and its open position.

21. A toolbox according to Claim 20, wherein the cover member is configured with two detachably attachable cover legs, each having a first end configured to be connected to the cover bottom and a second end configured for carrying the respective wheel.

22. A toolbox according to any one of the preceding claims, wherein the base member is configured with two detachably attachable base legs, each having a first end configured to be connected to the base bottom and a second end configured to be positioned on a surface on which the toolbox is disposed.

23. A toolbox according to any one of the preceding claims, further comprising a handle mounted to the cover member for transporting the toolbox or displacing the cover member between its closed and open positions.

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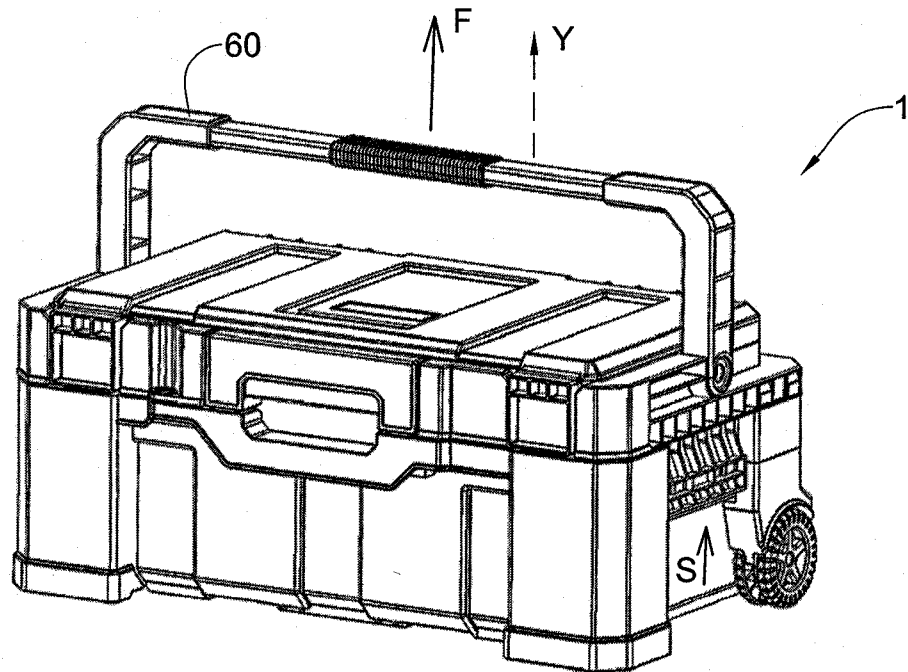


Fig. 1C

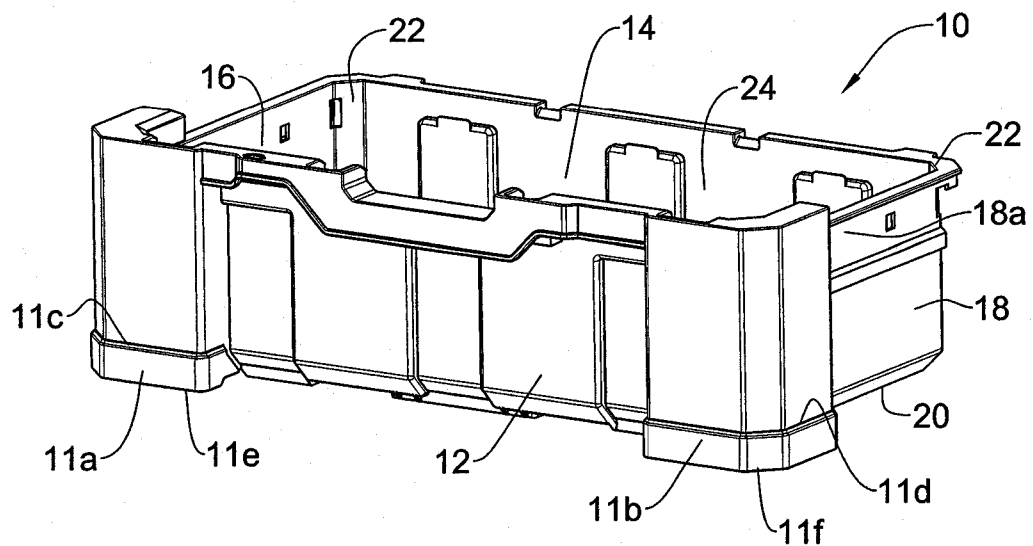


Fig. 2A

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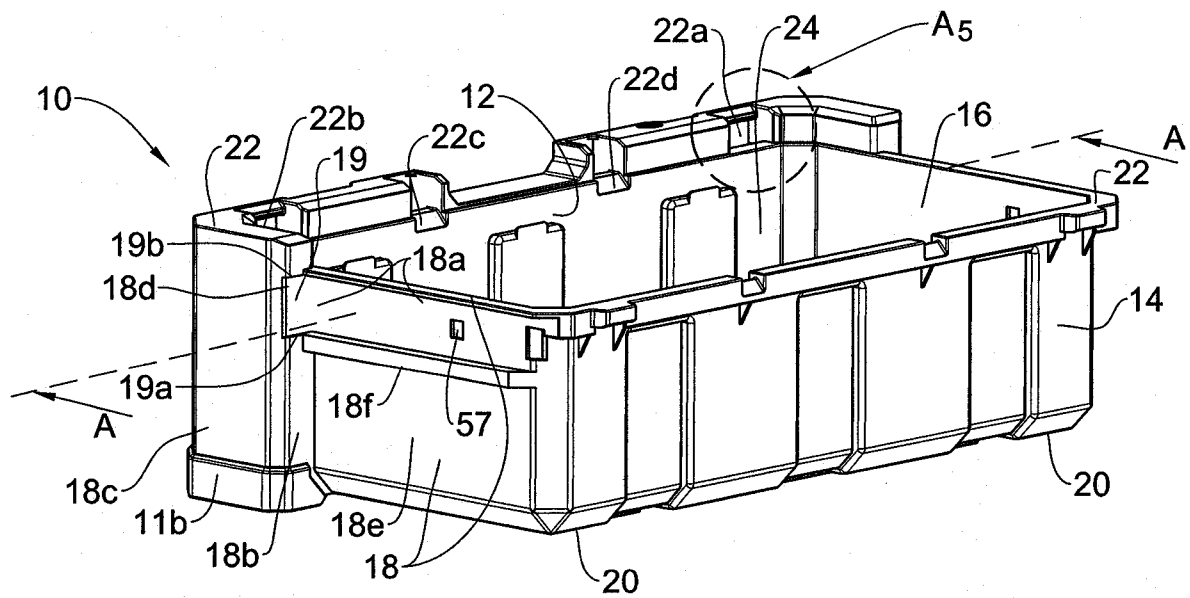


Fig. 2B

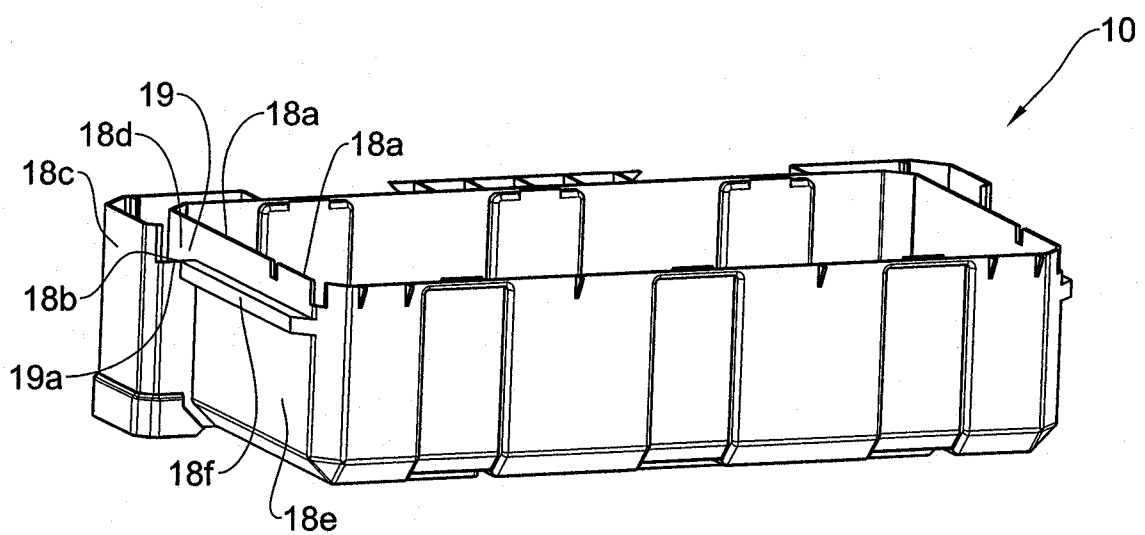


Fig. 2C

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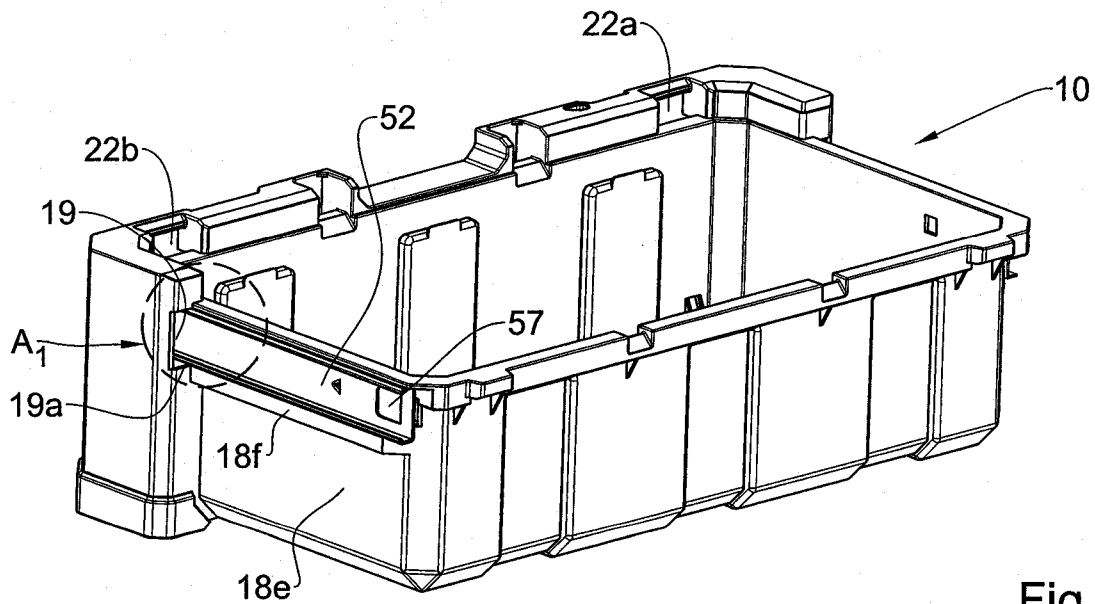


Fig. 2D

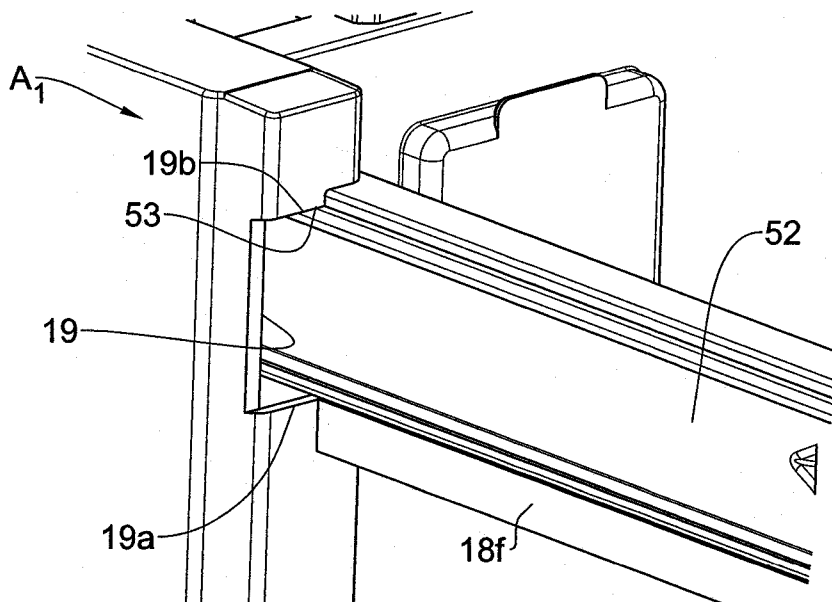


Fig. 2E

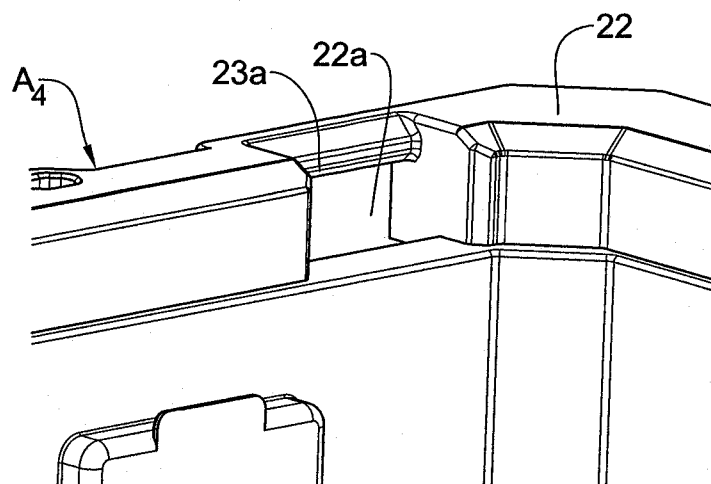


Fig. 2F

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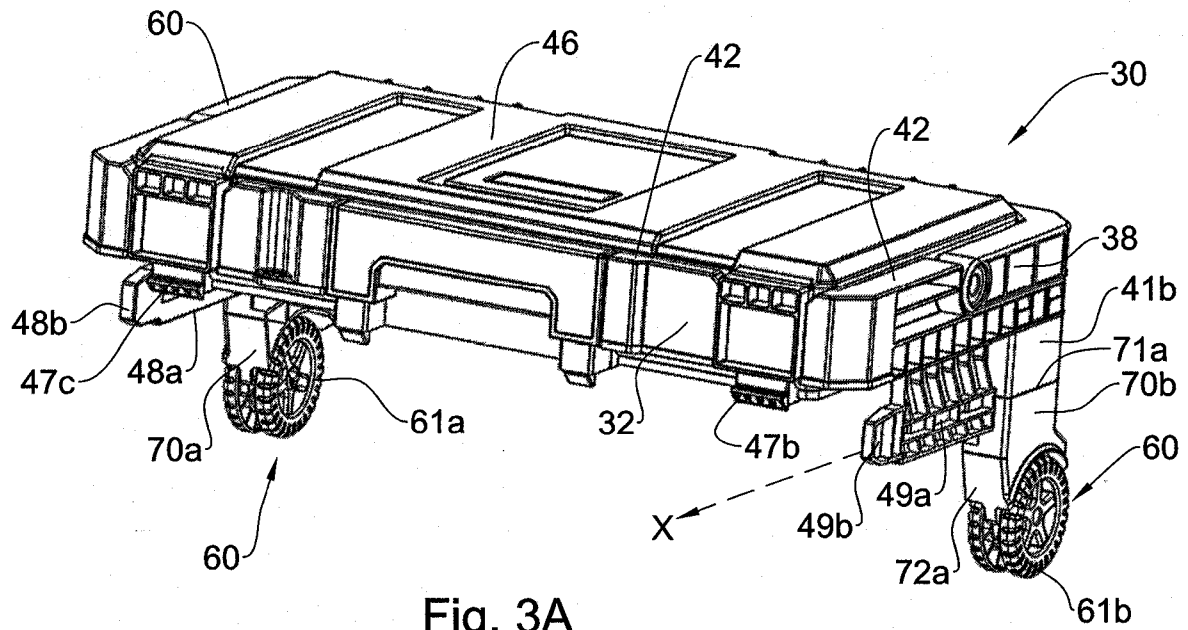


Fig. 3A

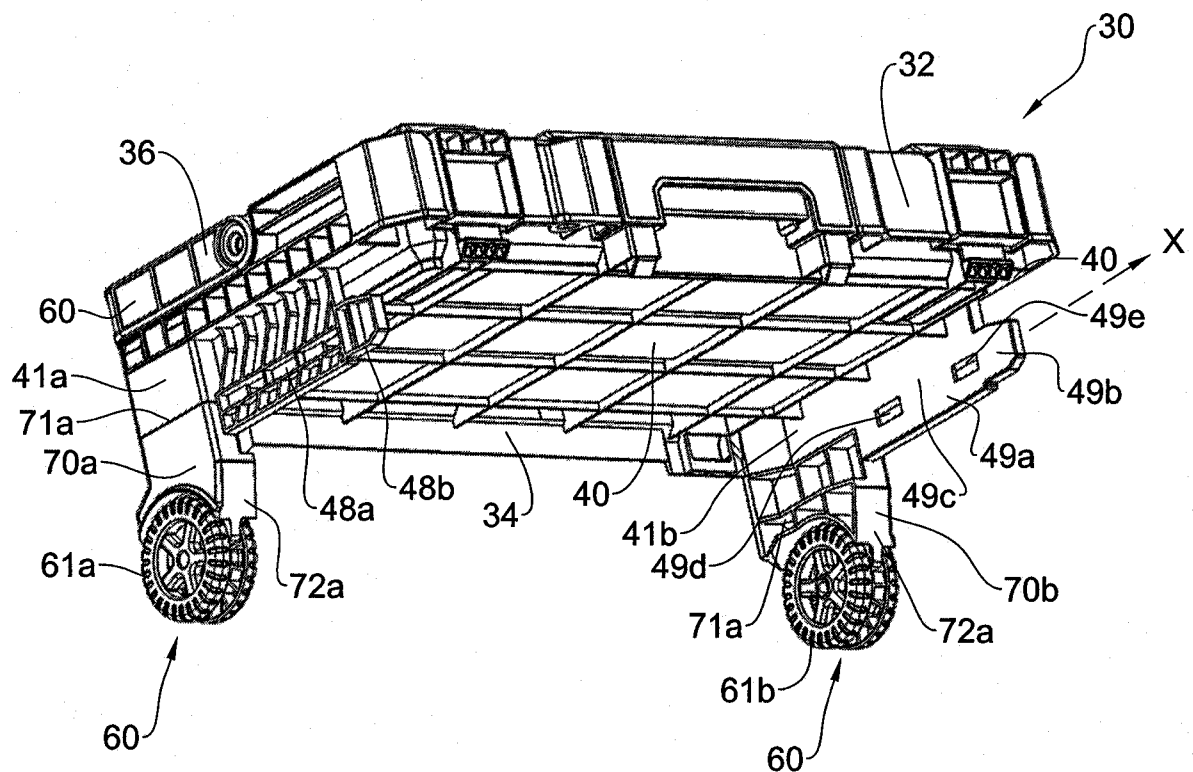


Fig. 3B

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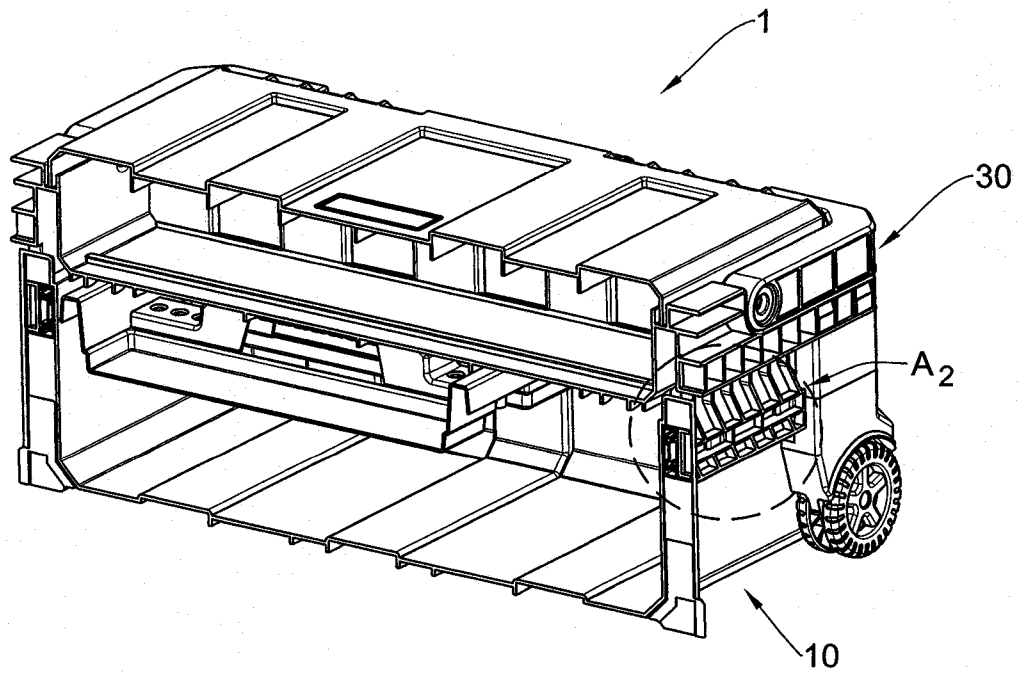


Fig. 4A

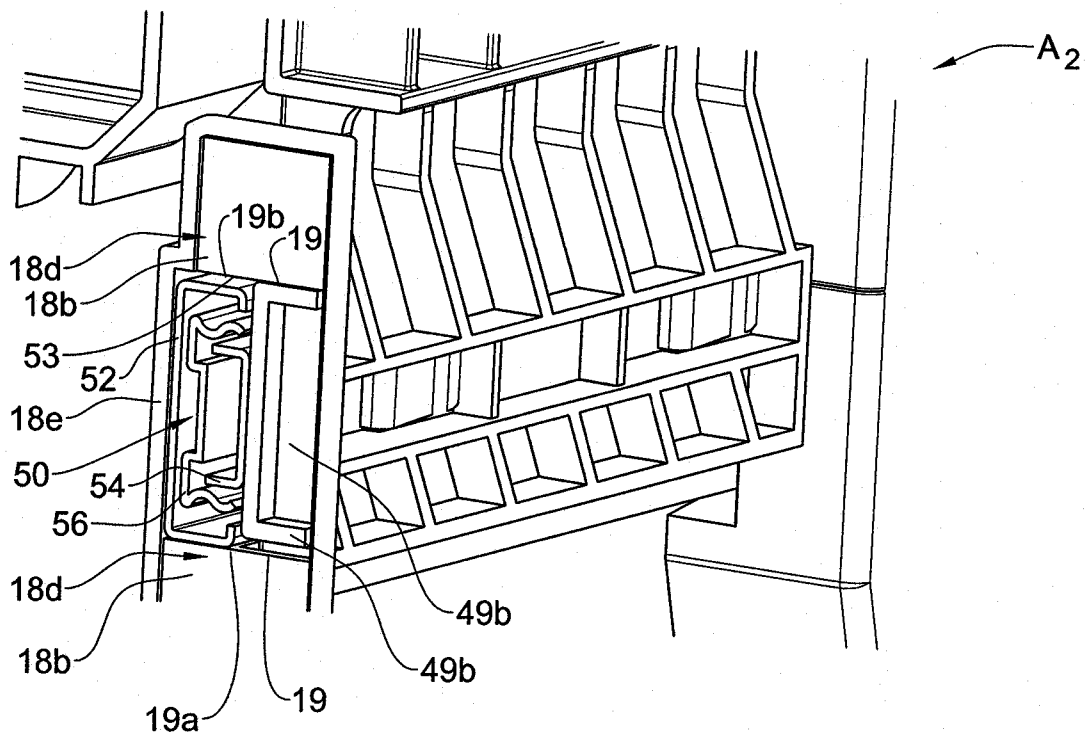


Fig. 4B

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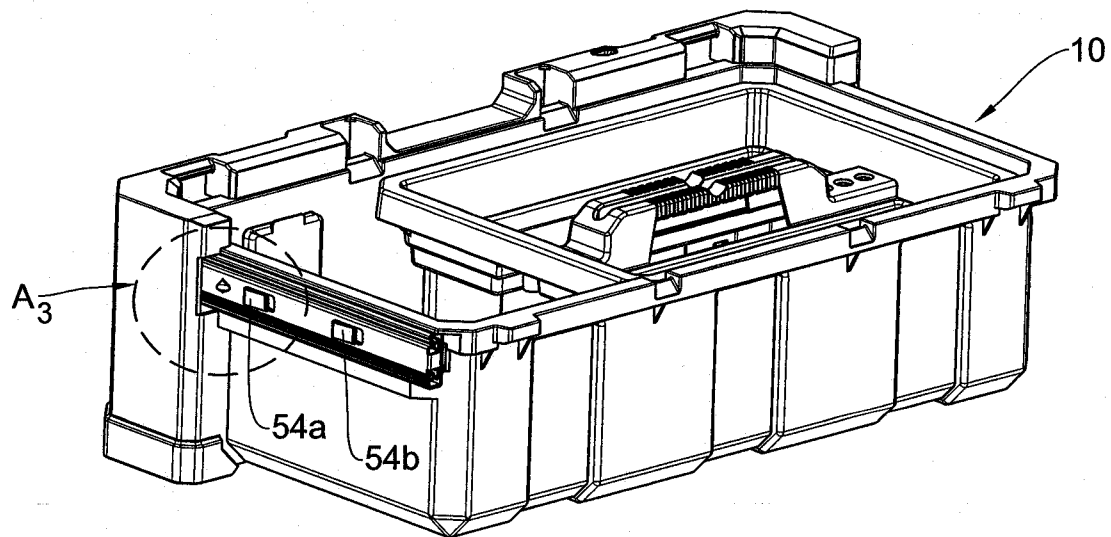


Fig. 4C

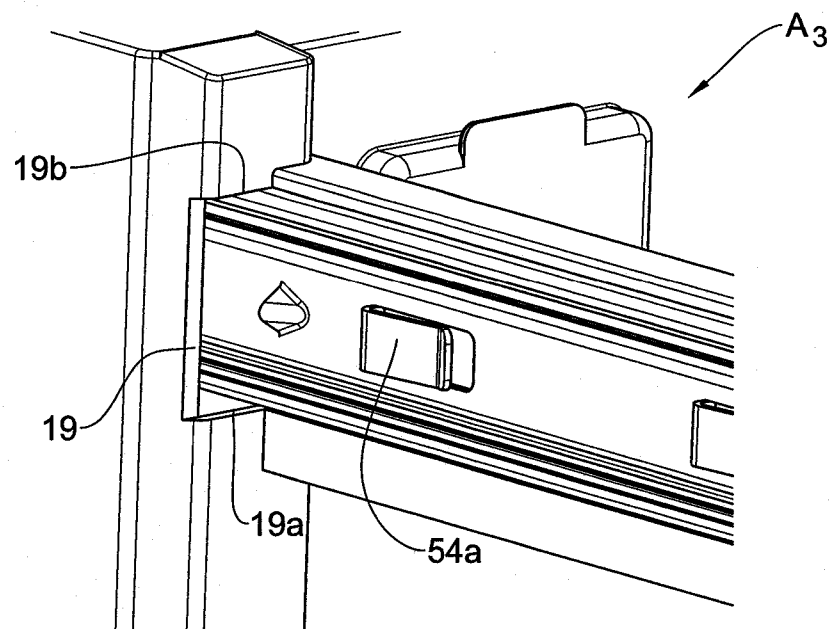


Fig. 4D

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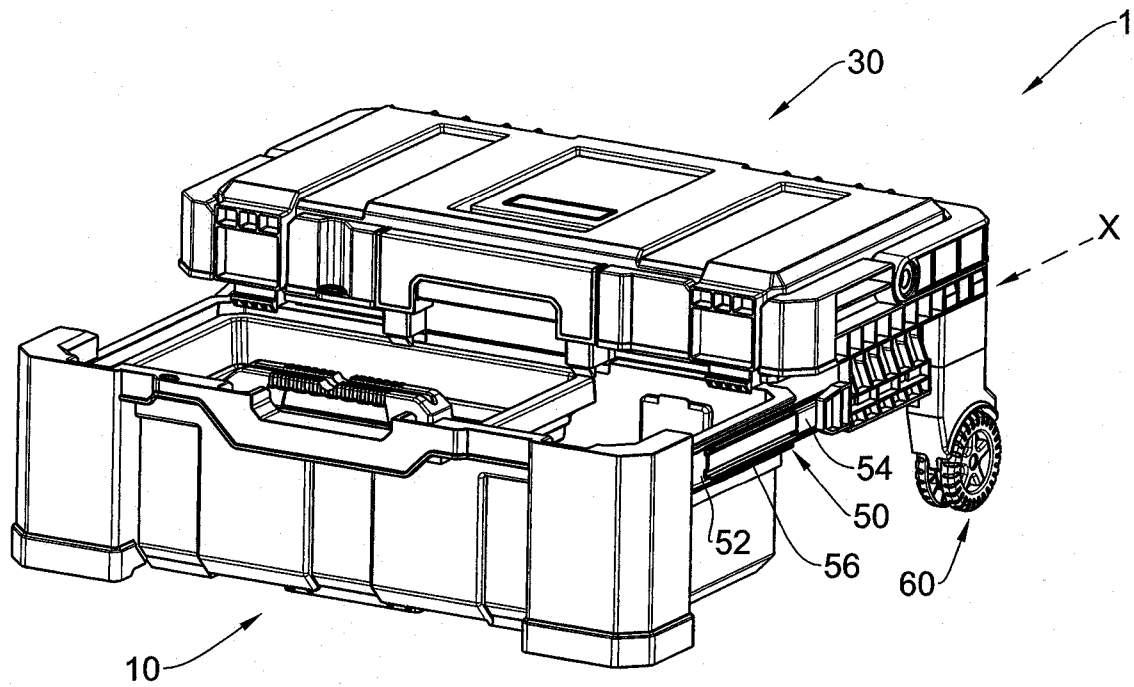


Fig. 5A

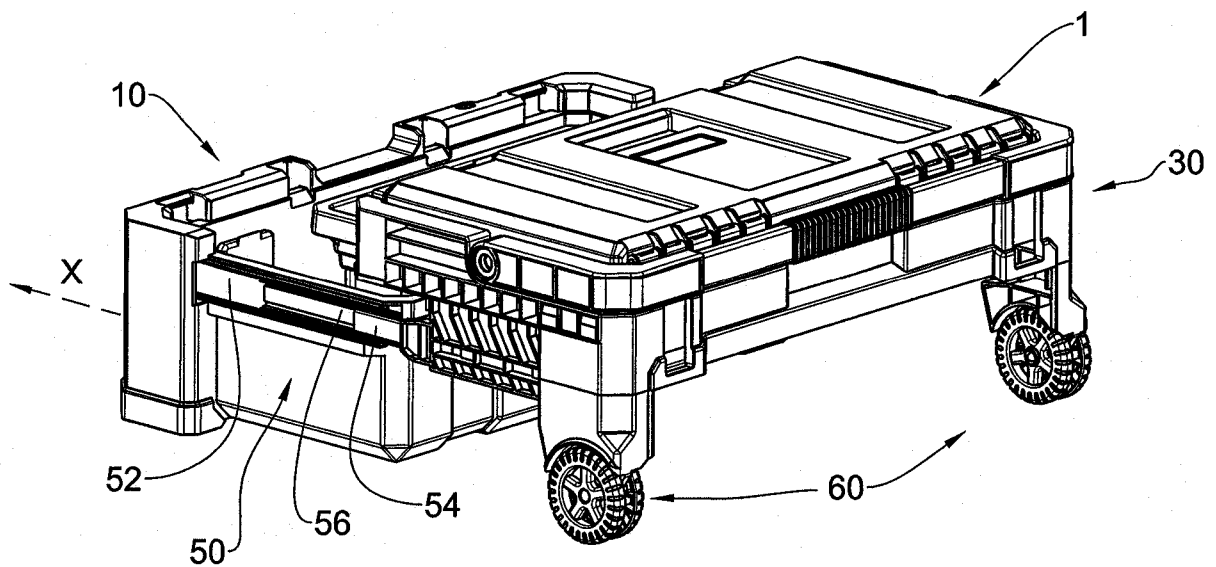


Fig. 5B

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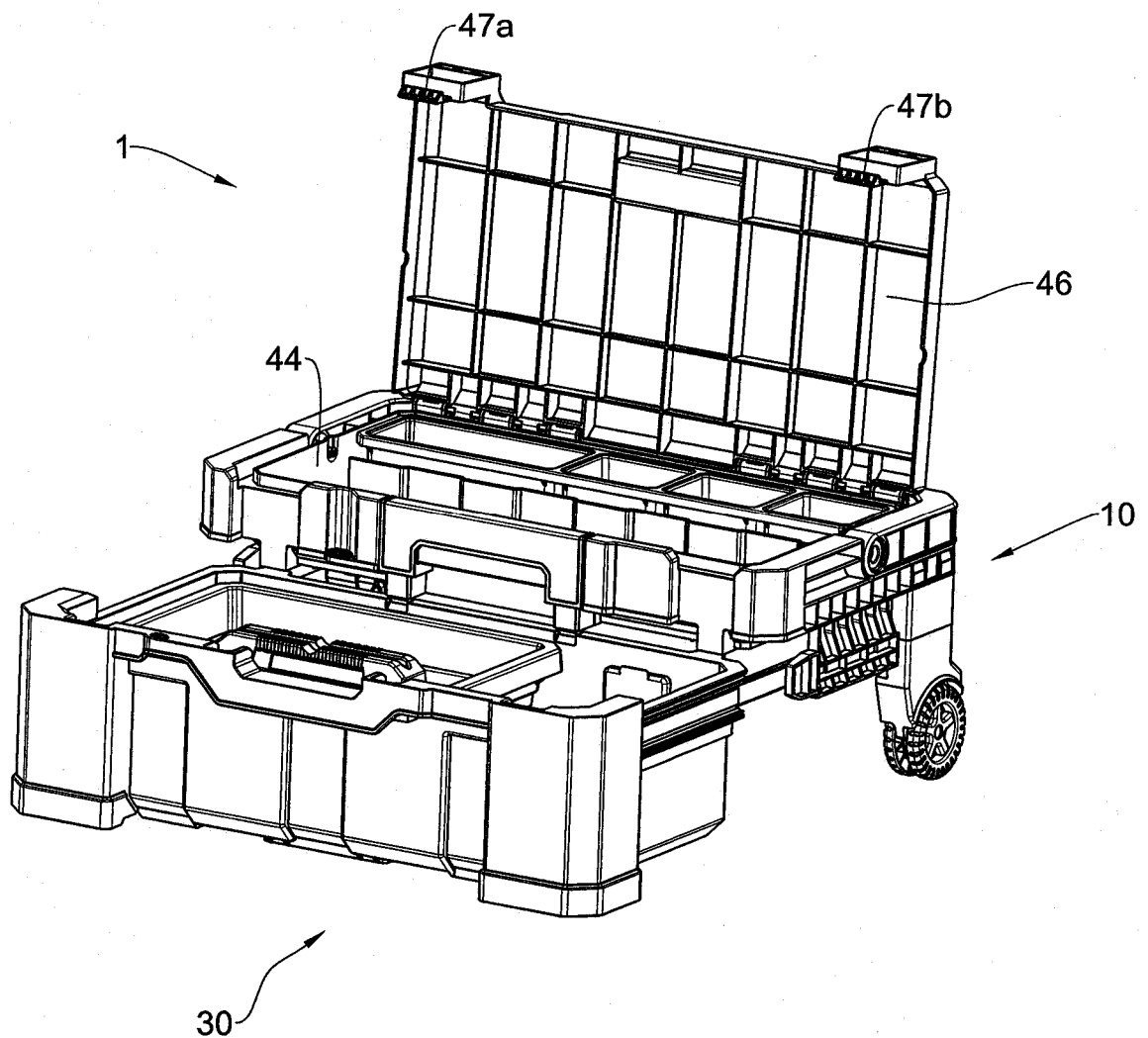


Fig. 5C

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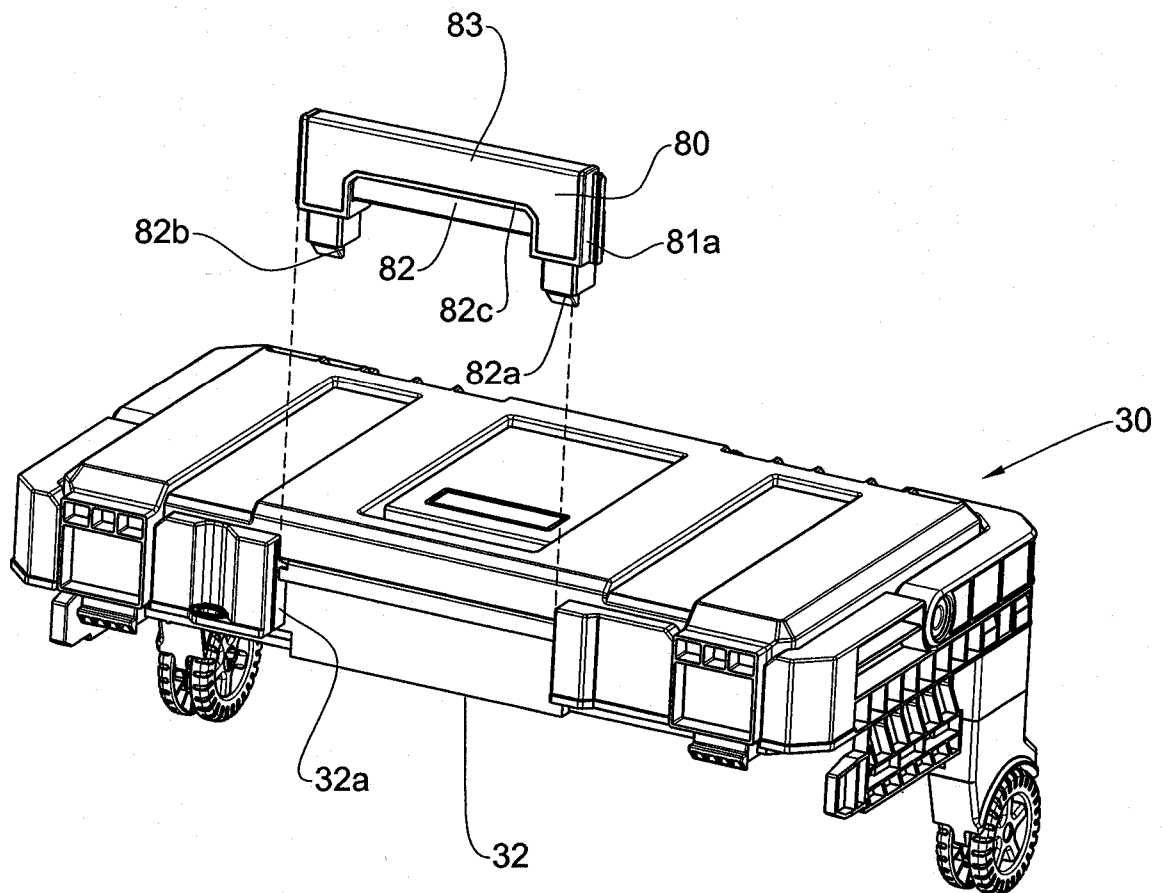


Fig. 6

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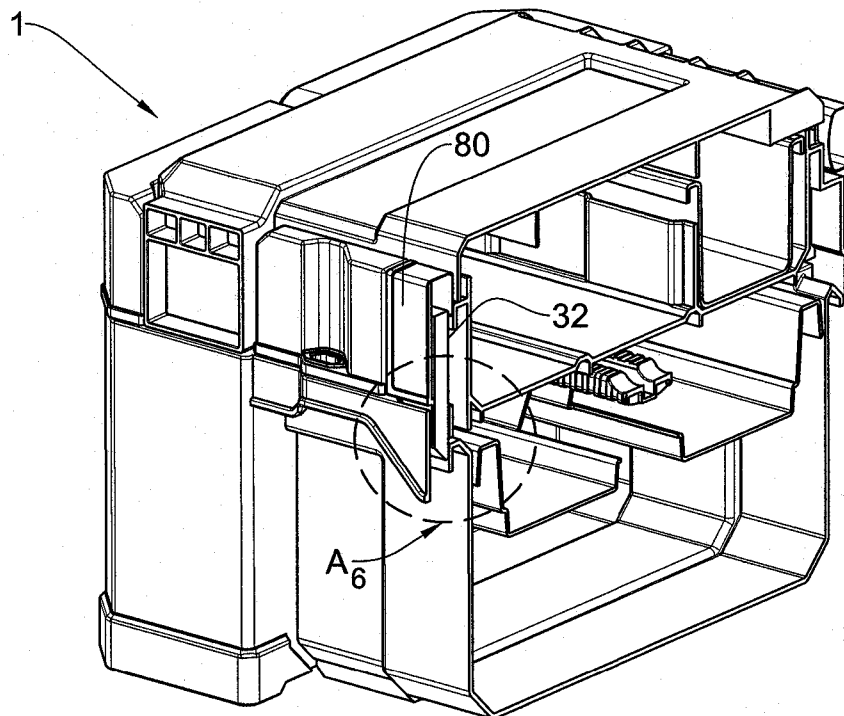


Fig. 7A

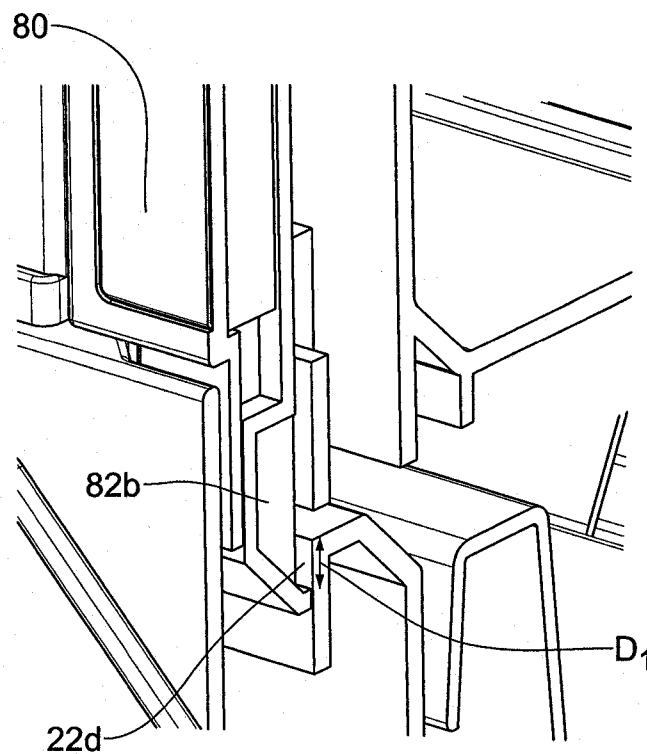


Fig. 7B

INTERNATIONAL SEARCH REPORT

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PCT/IL2014/050152

A. CLASSIFICATION OF SUBJECT MATTER
INV. B25H3/02
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B25H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	page 16, line 21 - page 21, line 20 page 24, line 25 - page 26, line 10 figures	11,12, 21,22

X	WO 2008/090546 A1 (KETER PLASTIC LTD [IL]; BRUNNER YARON [IL]) 31 July 2008 (2008-07-31) paragraph [0009] - paragraph [0010] paragraph [0015] - paragraph [0017] paragraph [0024] paragraph [0027] - paragraph [0030] figures	1-6,9, 13,14, 20,23

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Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

21 May 2014

Date of mailing of the international search report

28/05/2014

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van Woerden, N

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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