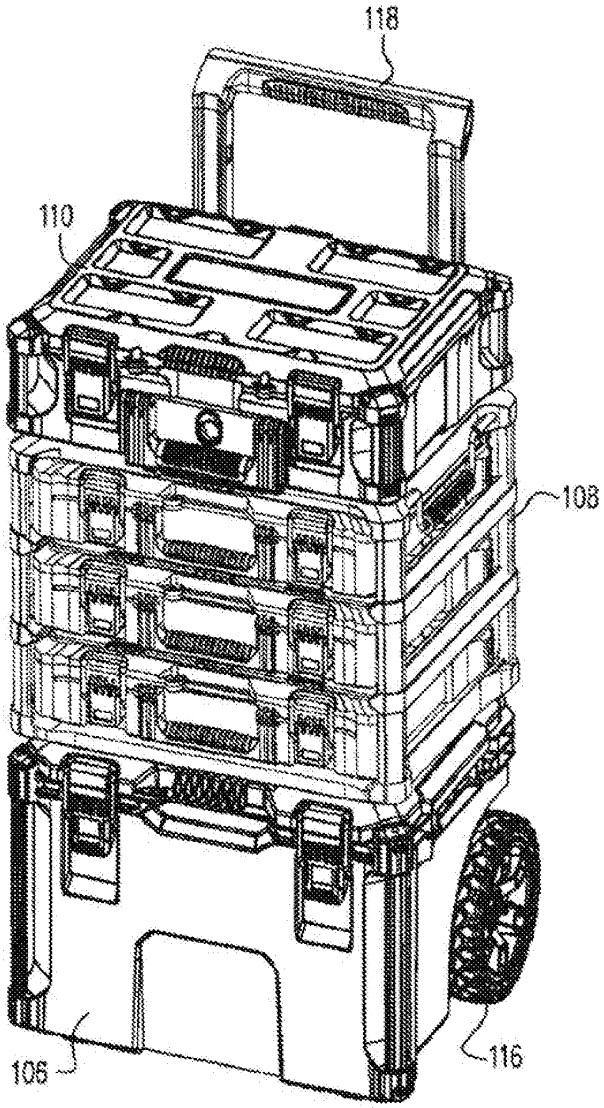


FIG. 6D

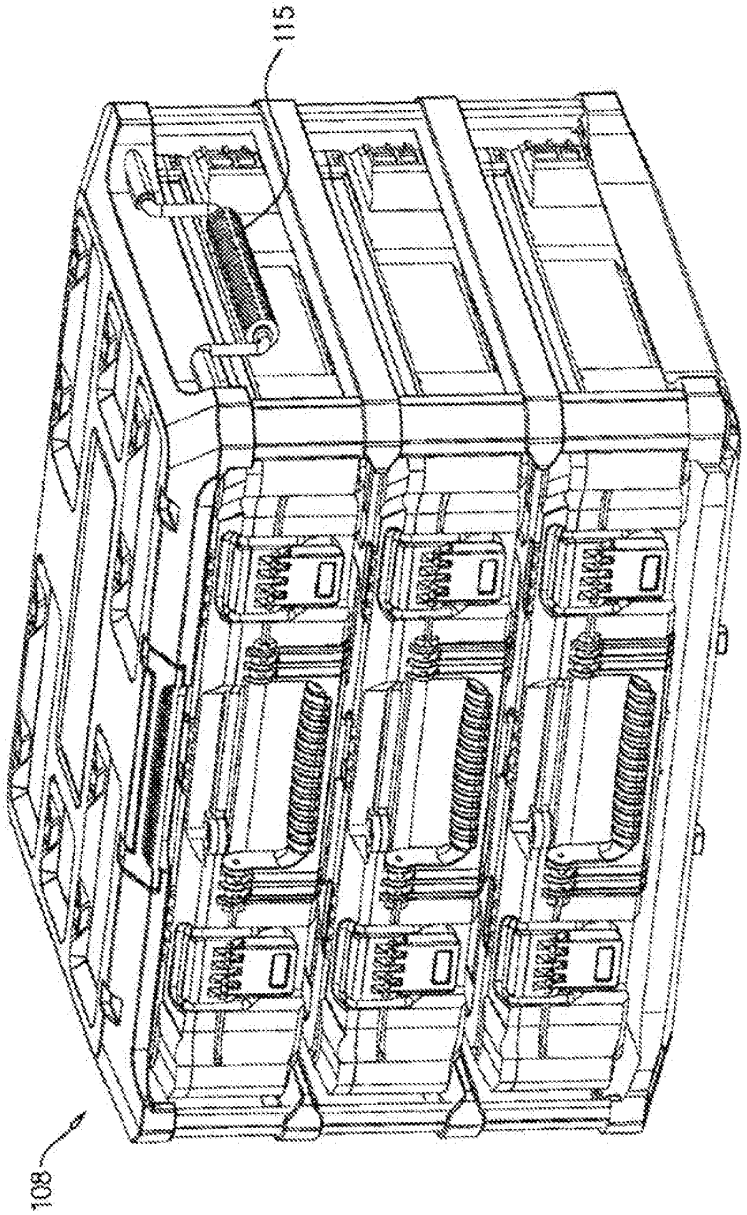


FIG. 6E

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Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
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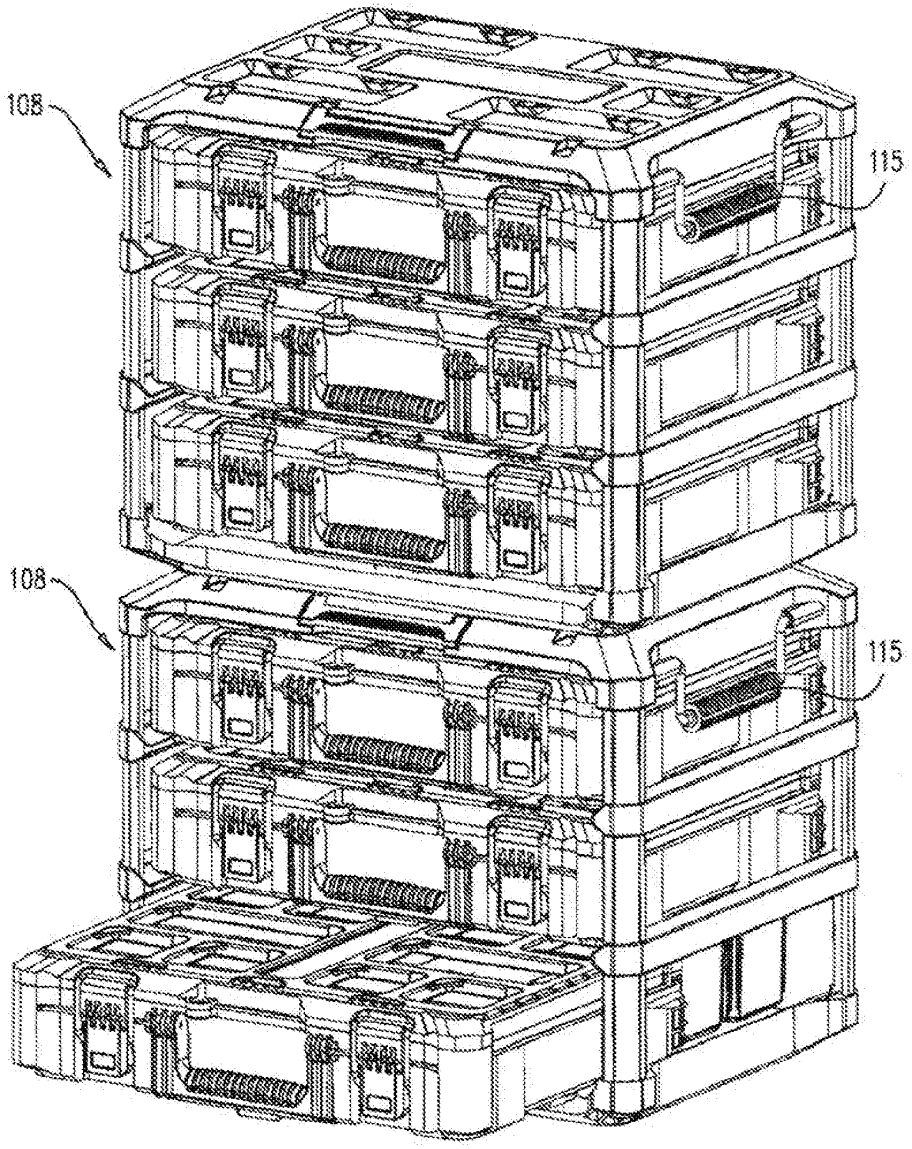


FIG. 6F

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IPR2024-01400

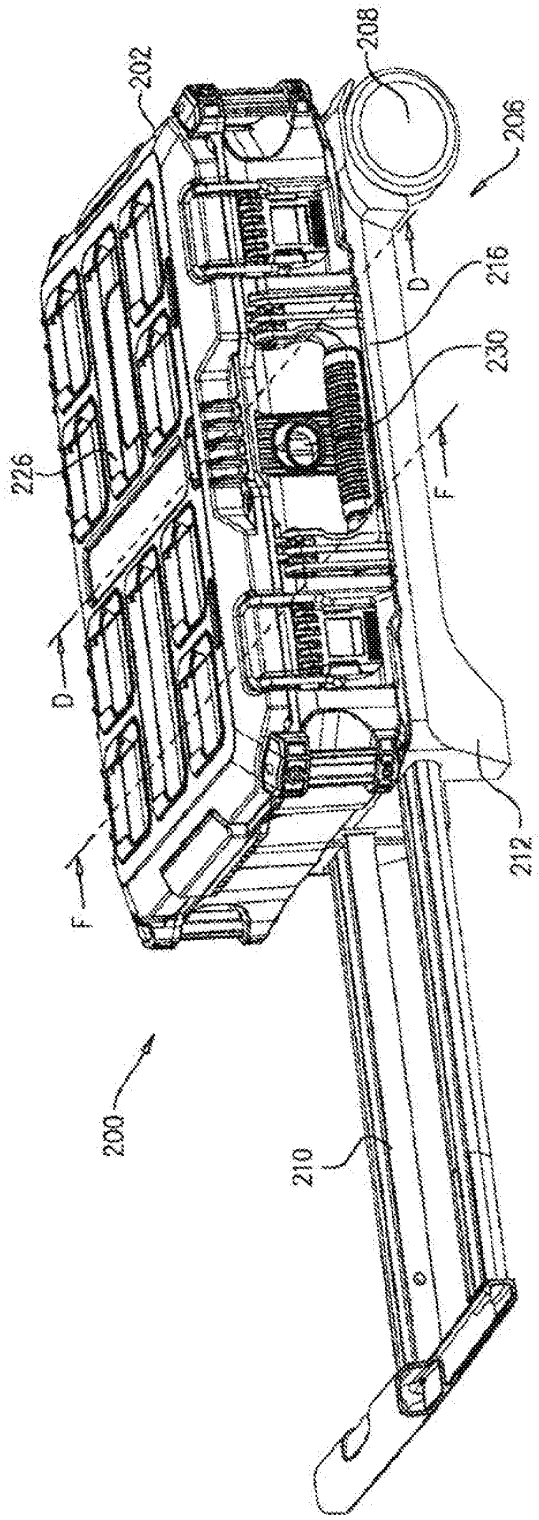


FIG. 7A

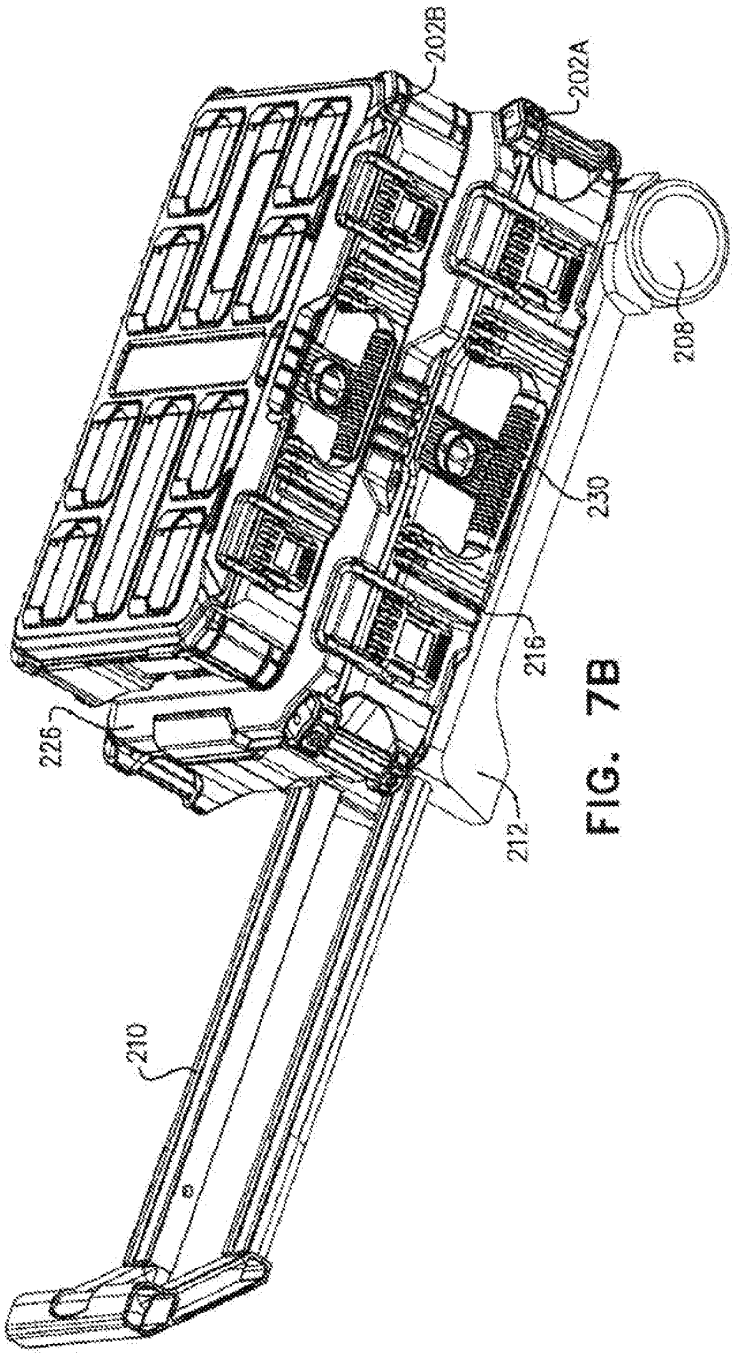


FIG. 7B

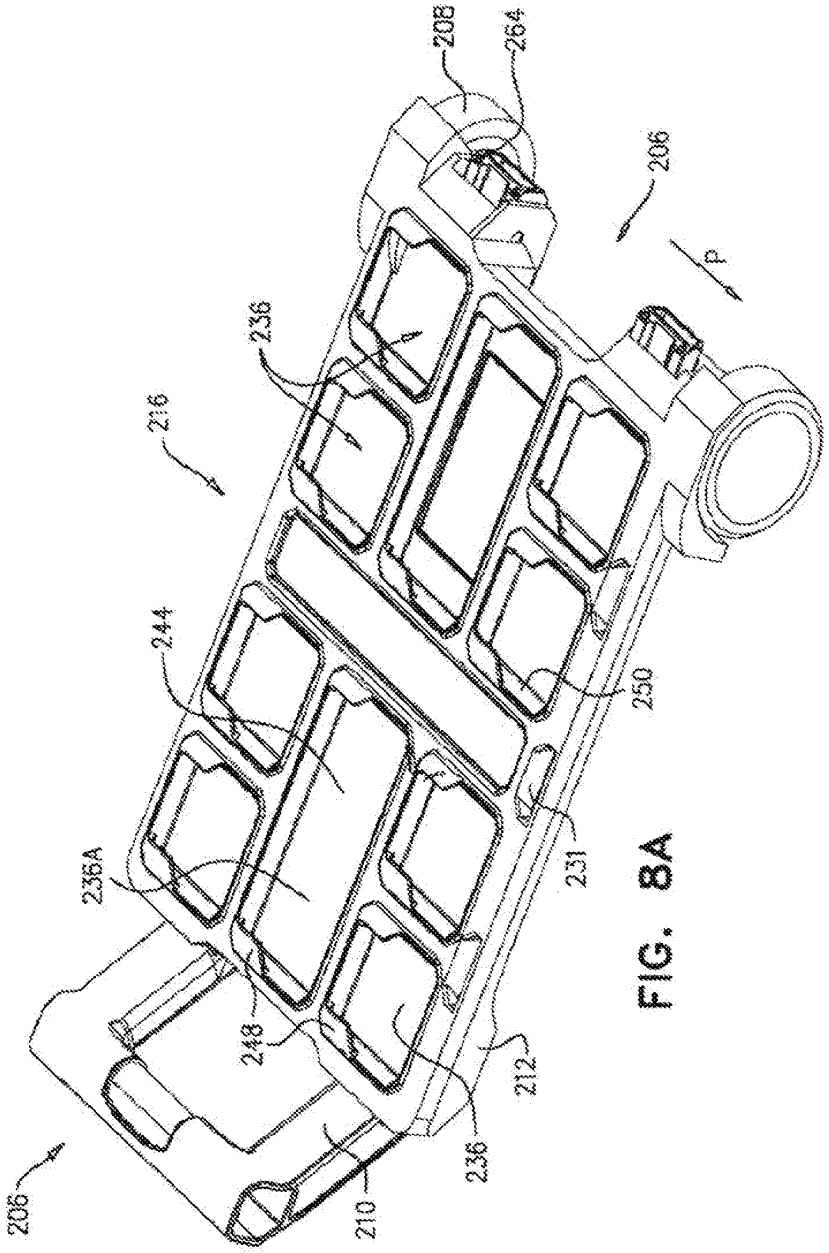


FIG. 8A

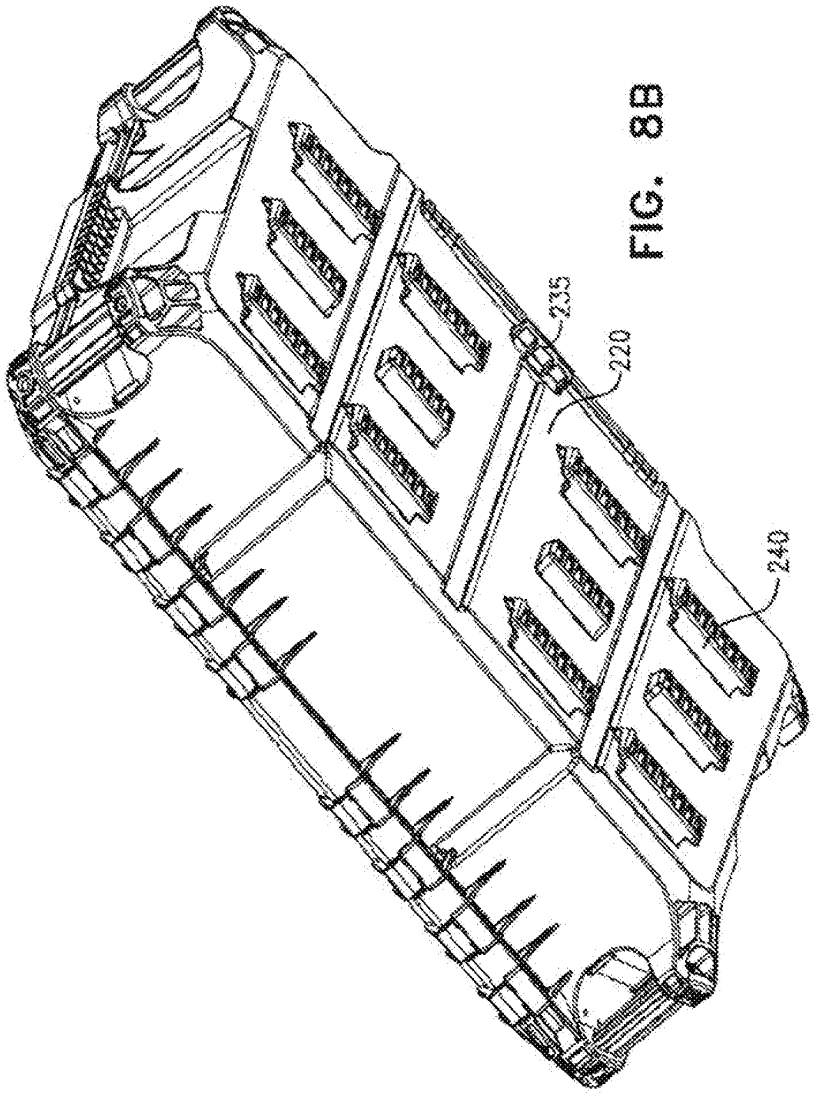


FIG. 8B

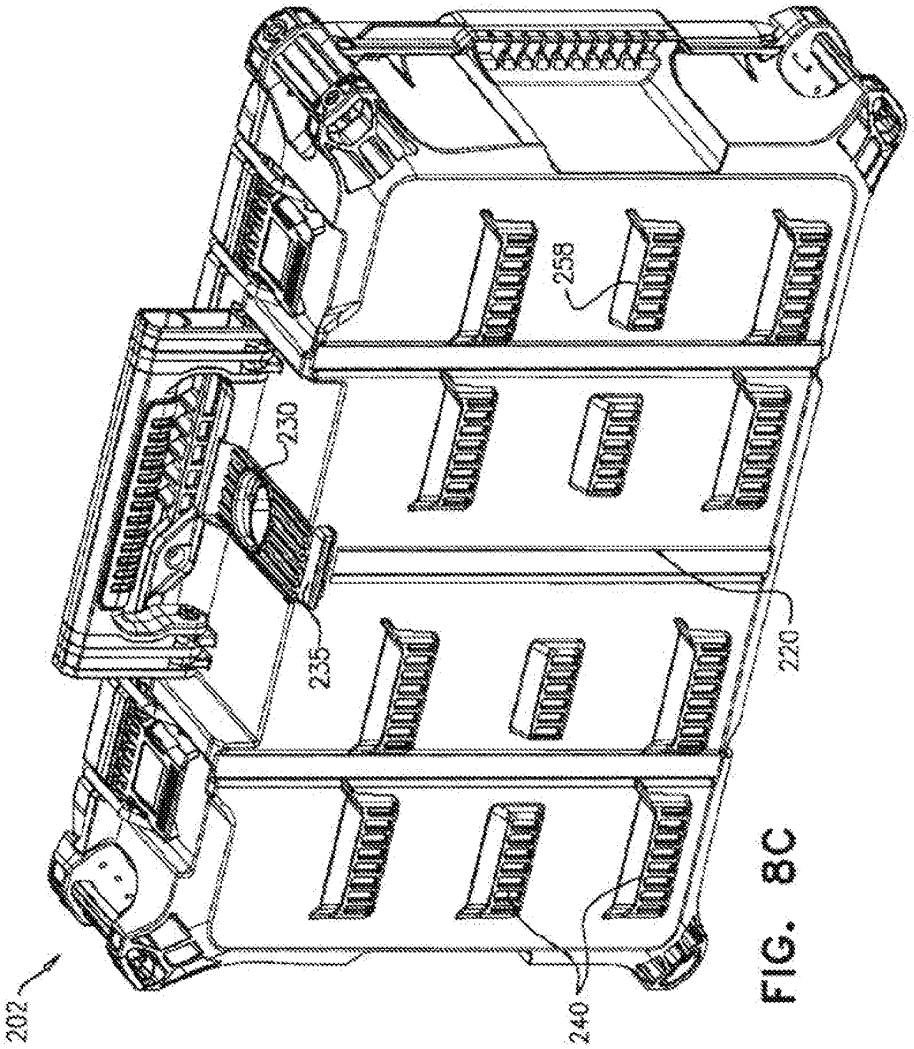


FIG. 8C

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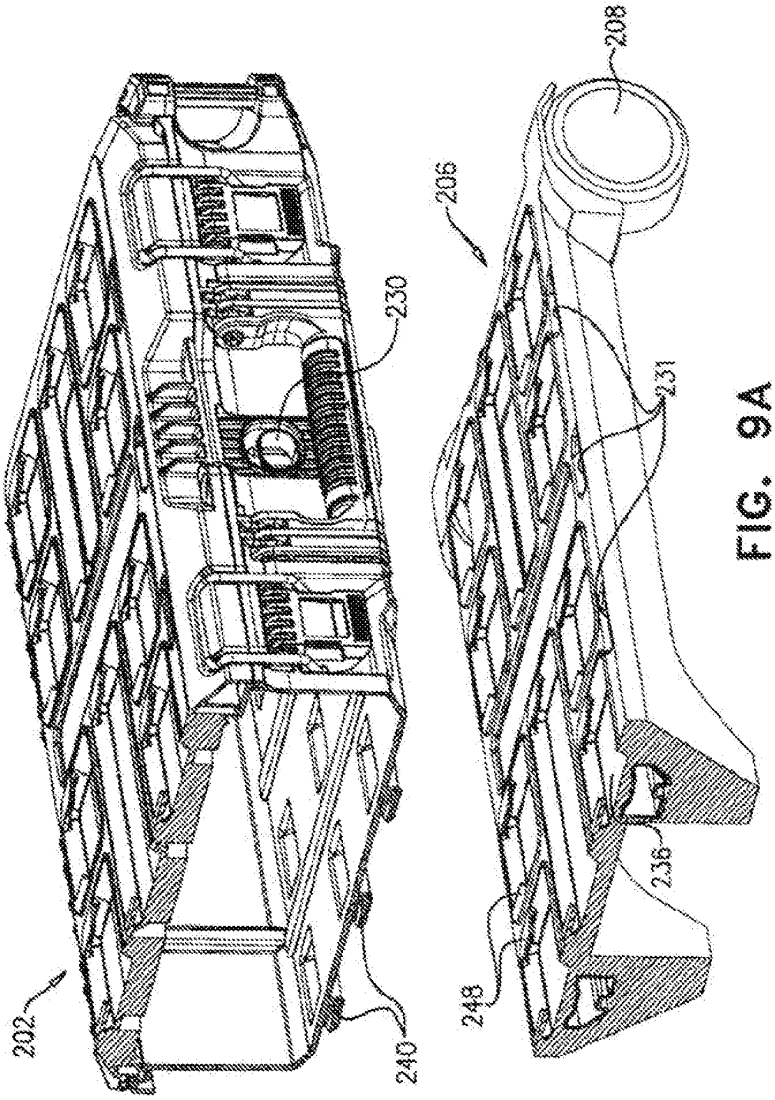


FIG. 9A

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 537
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

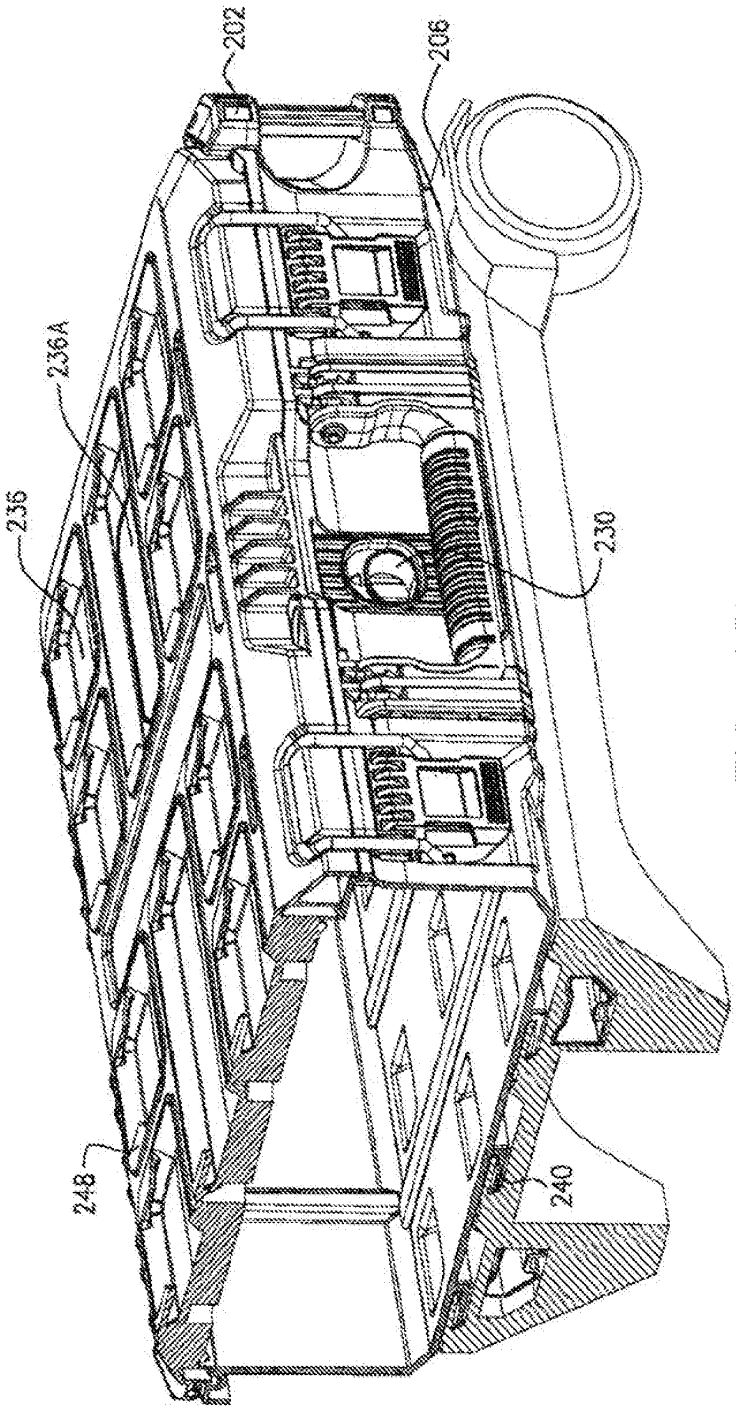


FIG. 9B

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 538
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

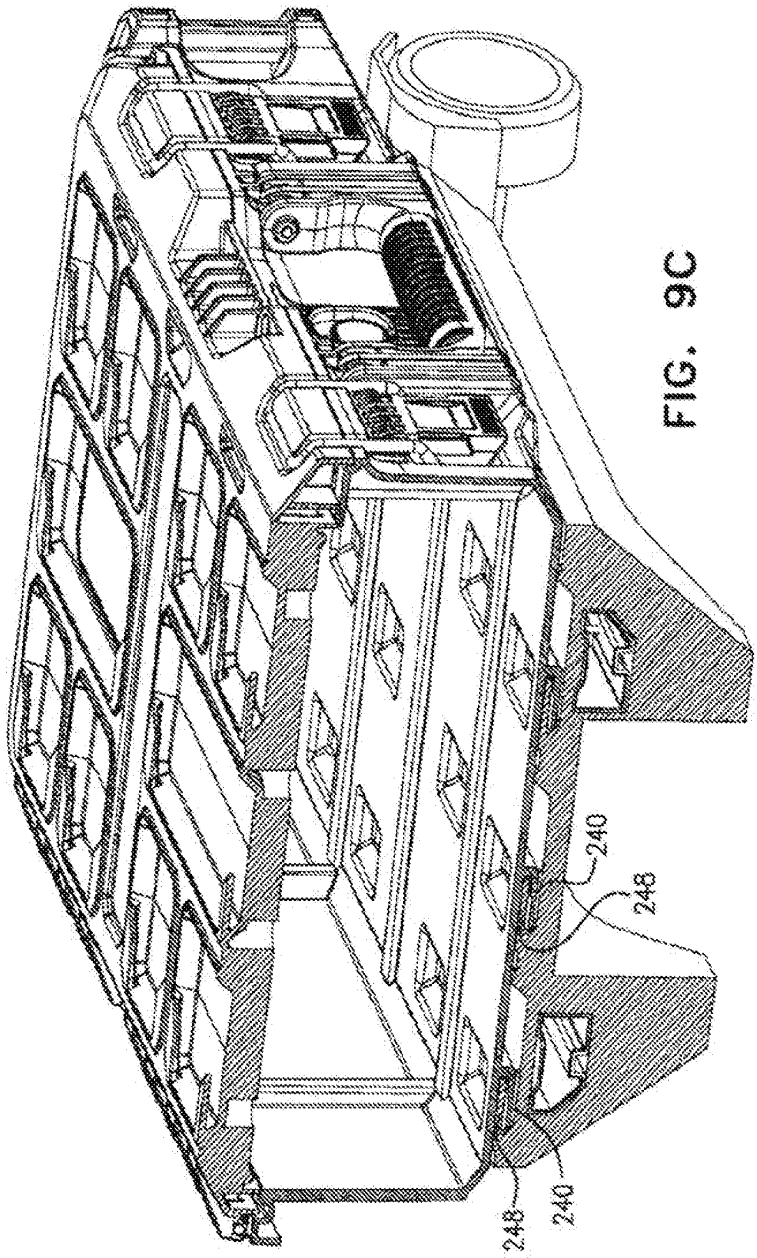


FIG. 9C

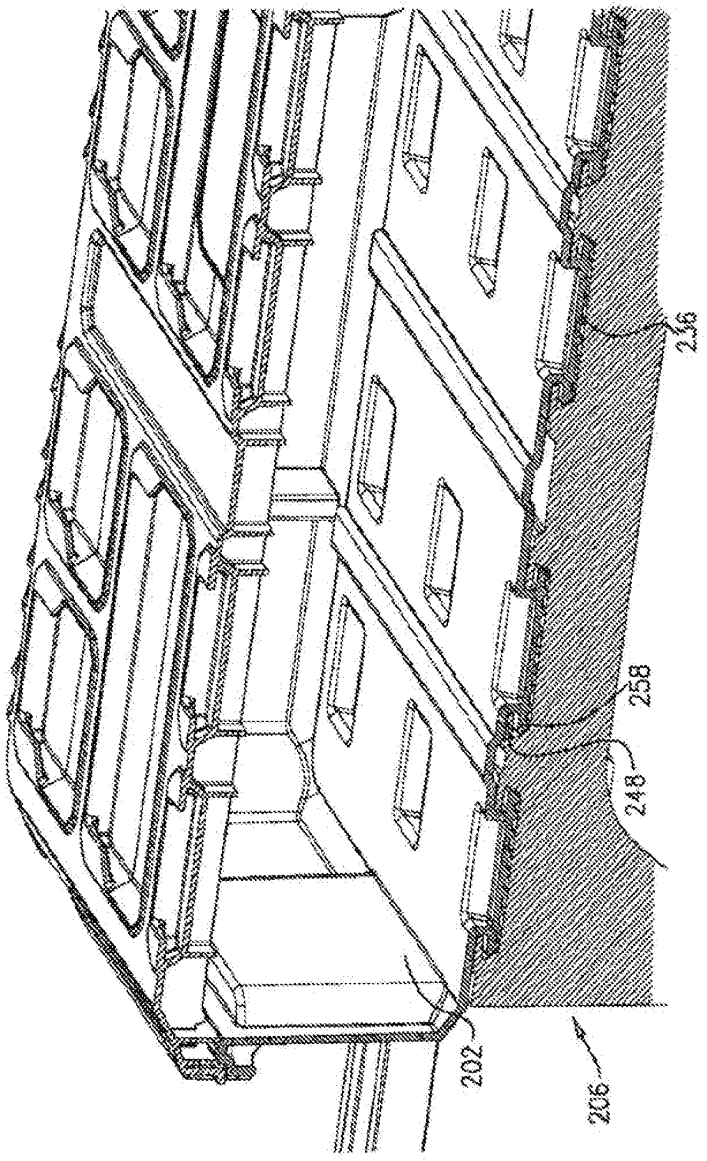


FIG. 9D

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Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
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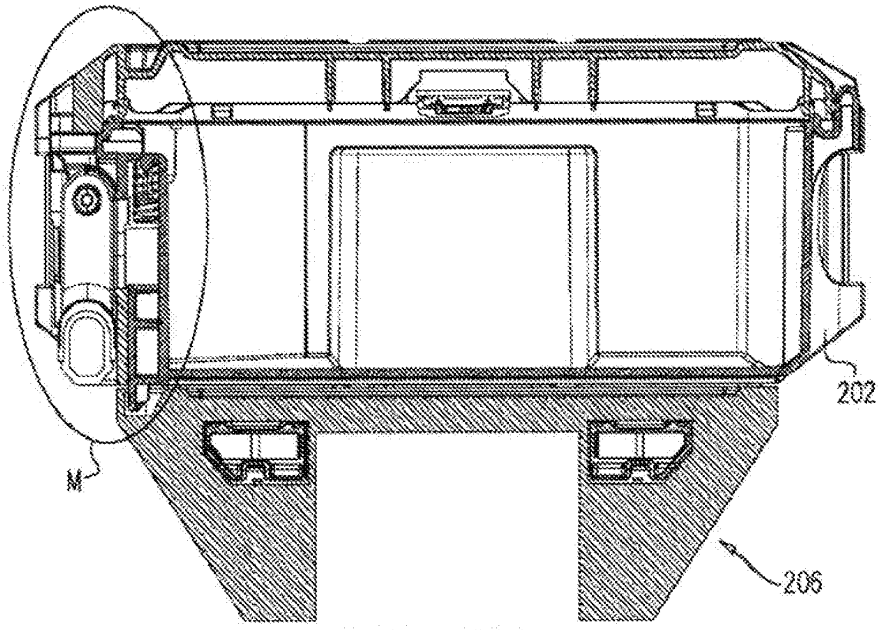


FIG. 10A

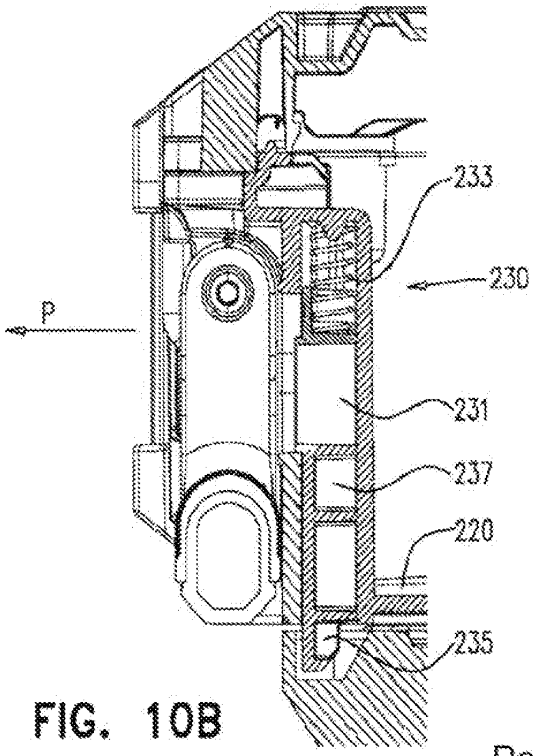


FIG. 10B

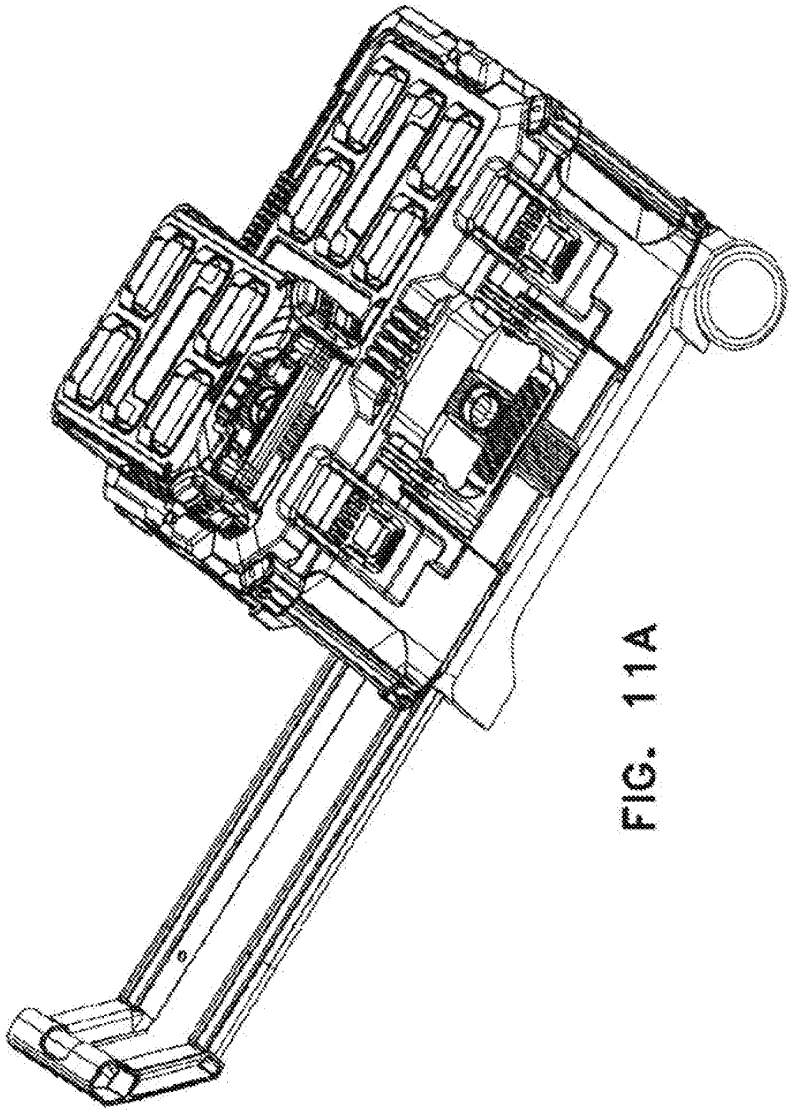


FIG. 11A

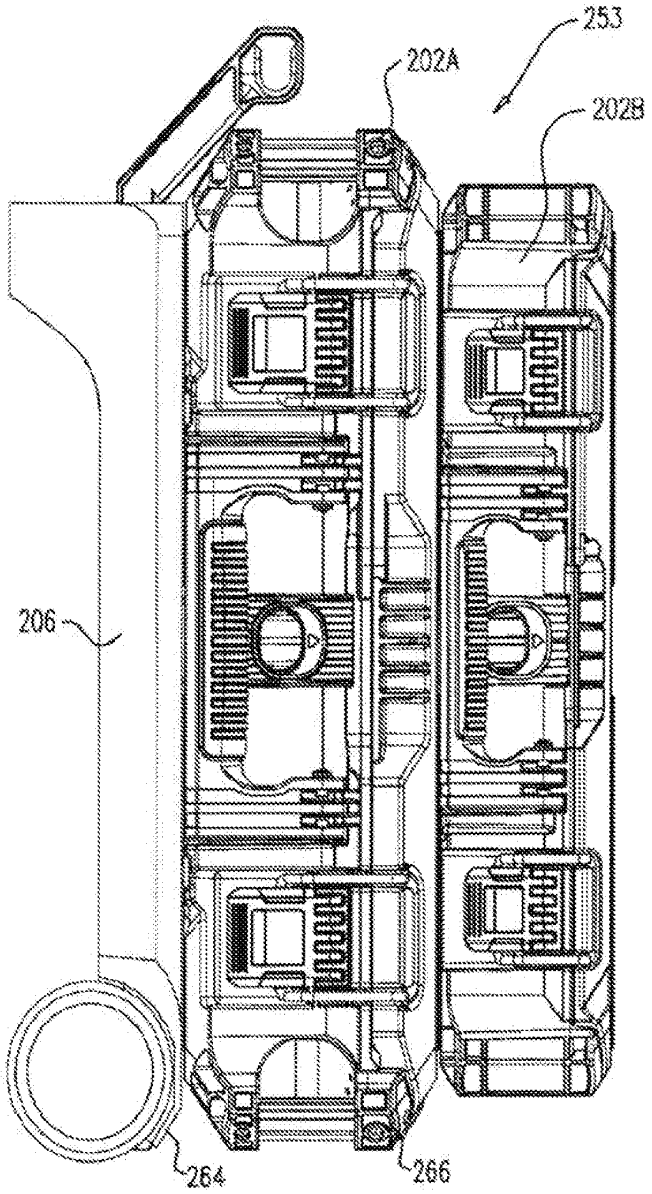


FIG. 11B

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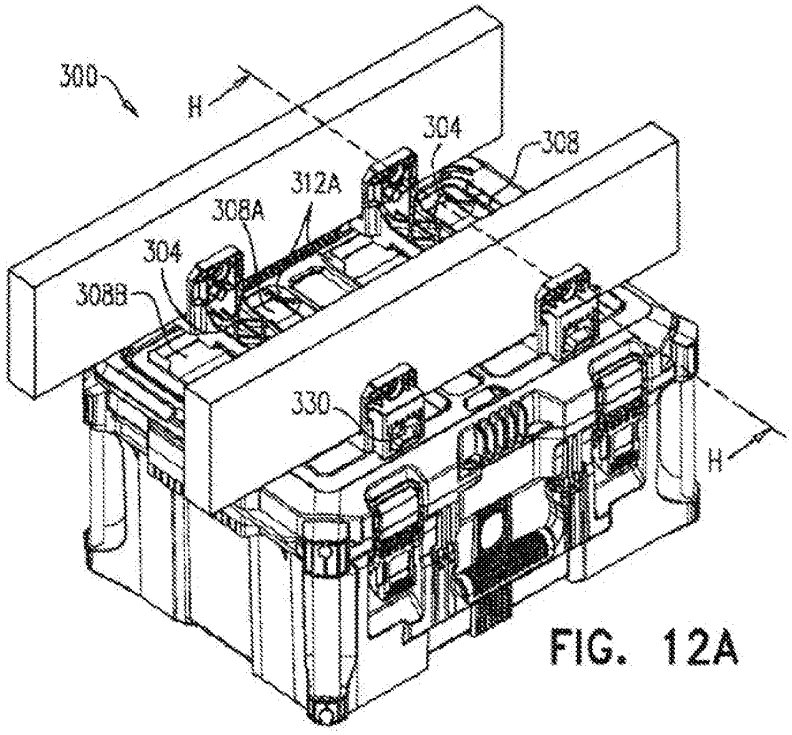


FIG. 12A

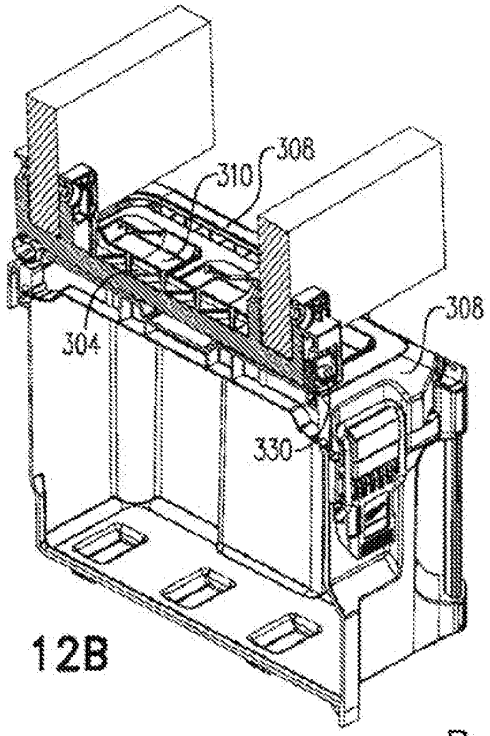
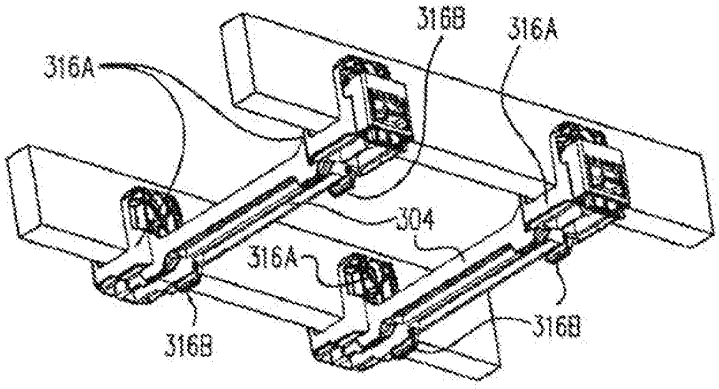


FIG. 12B



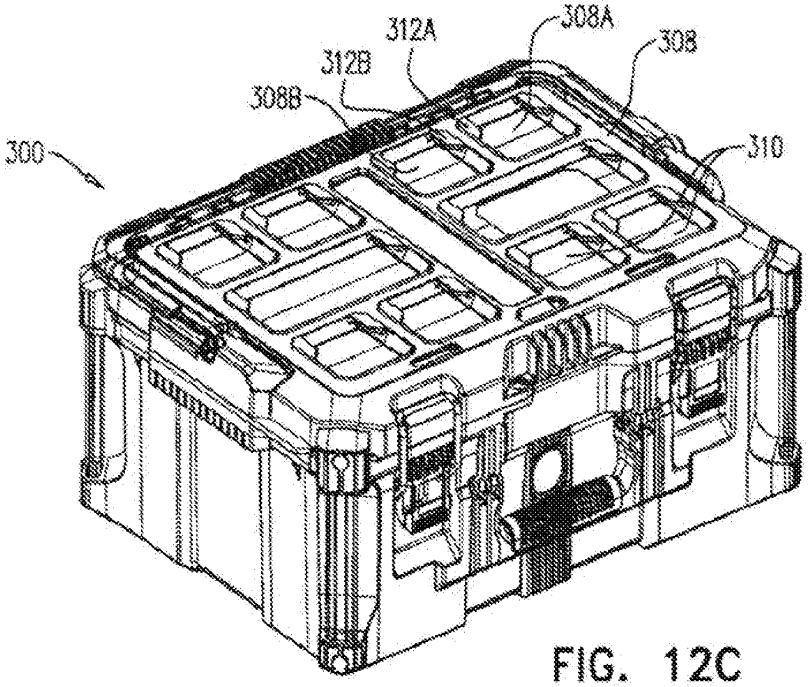


FIG. 12C

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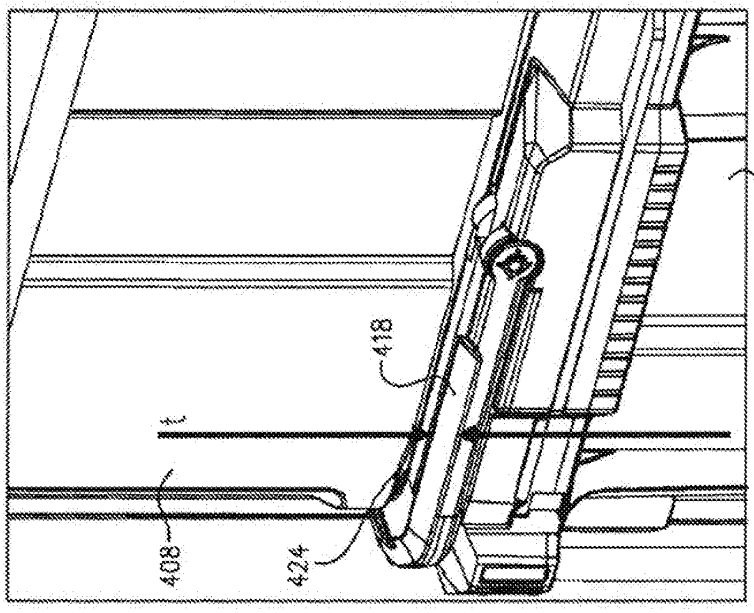


FIG. 13B

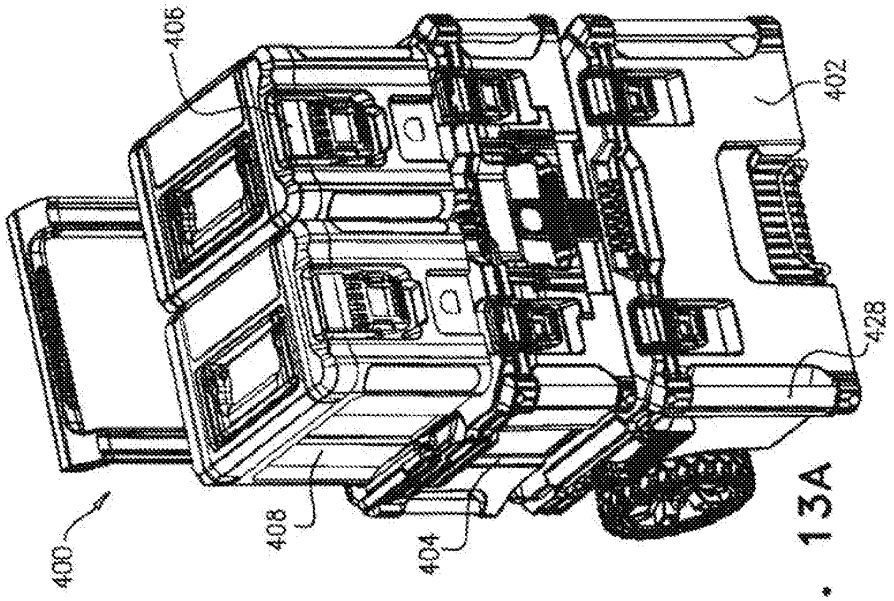


FIG. 13A

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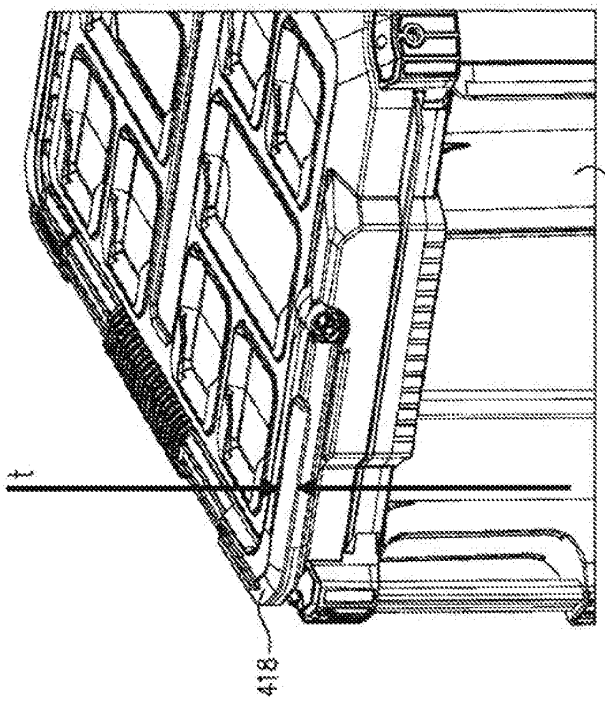


FIG. 13D

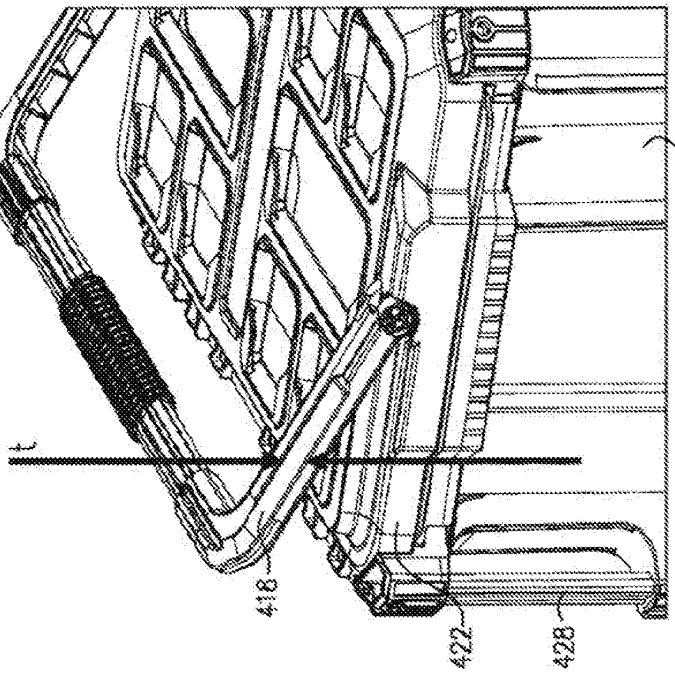


FIG. 13C

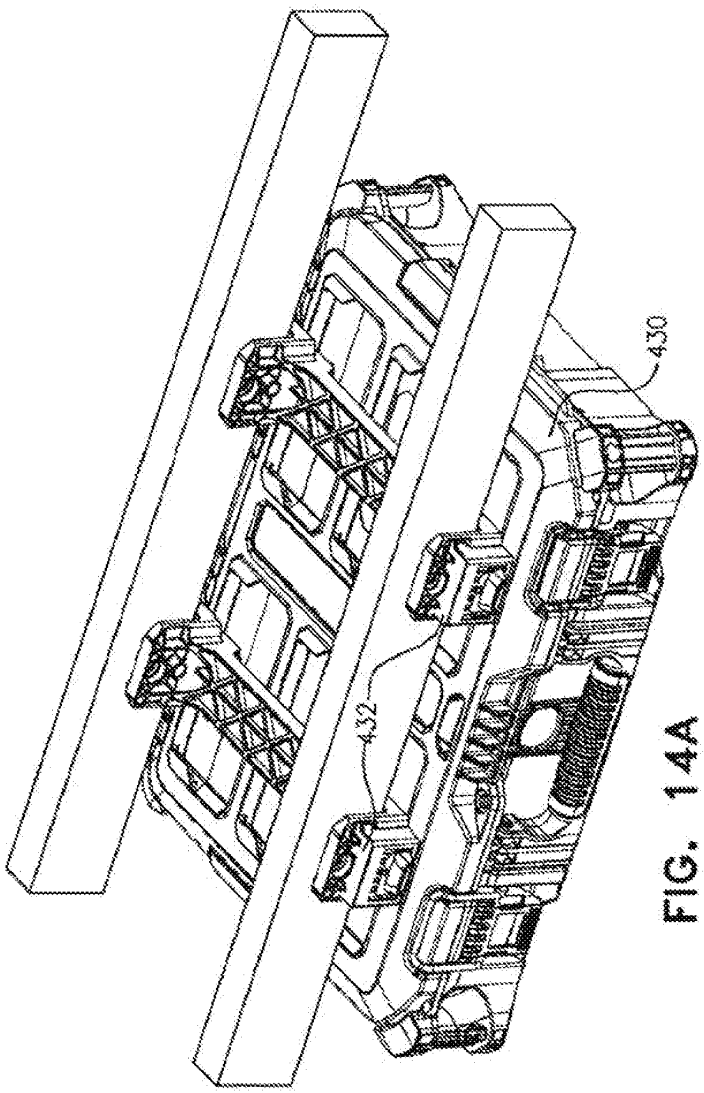


FIG. 14A

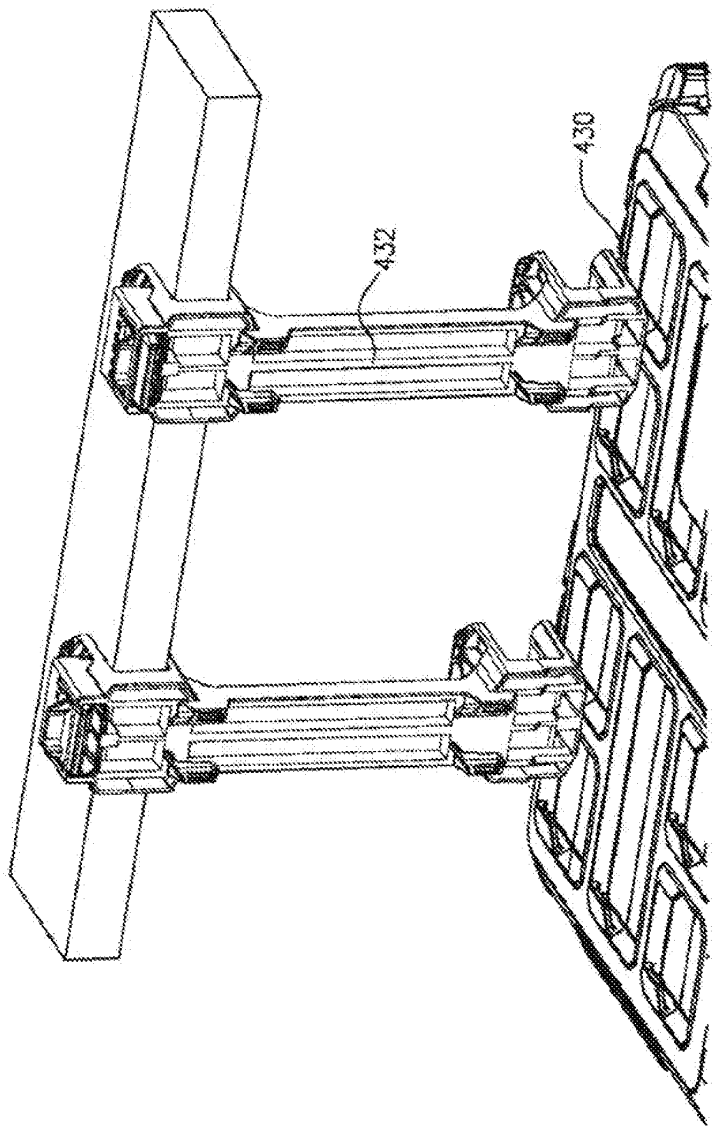


FIG. 14B

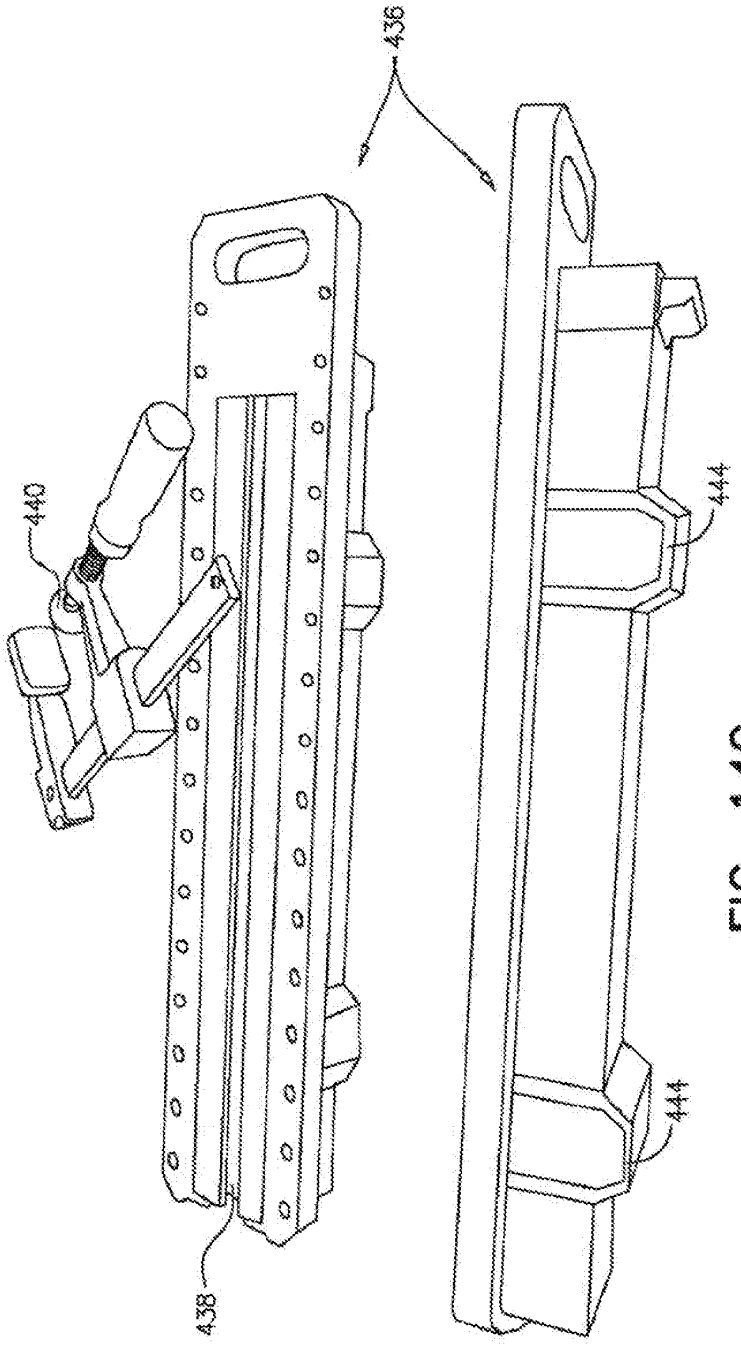


FIG. 14C

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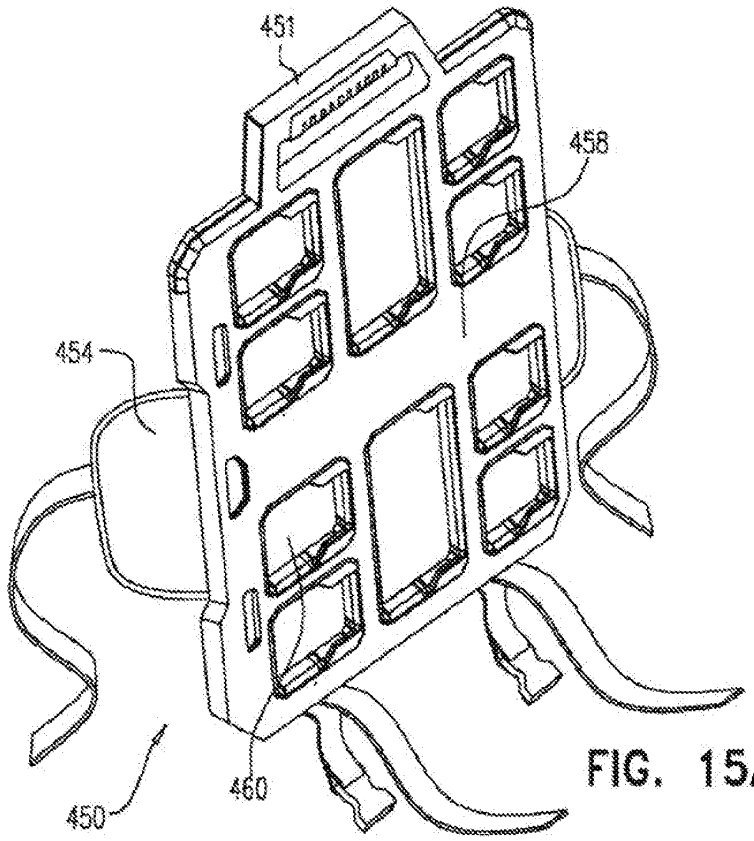


FIG. 15A

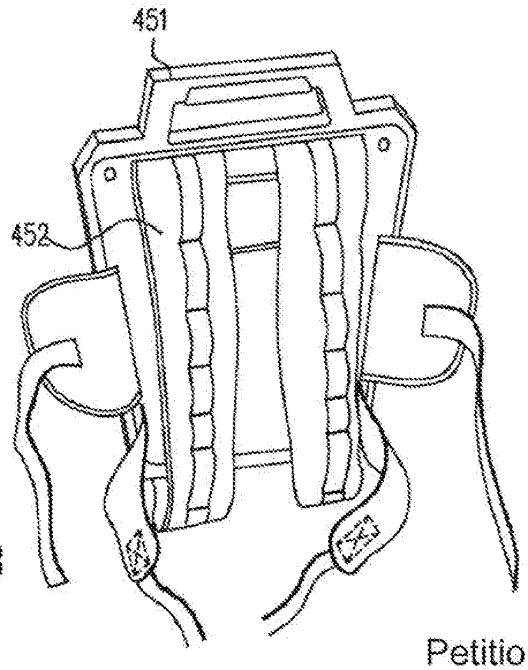


FIG. 15B

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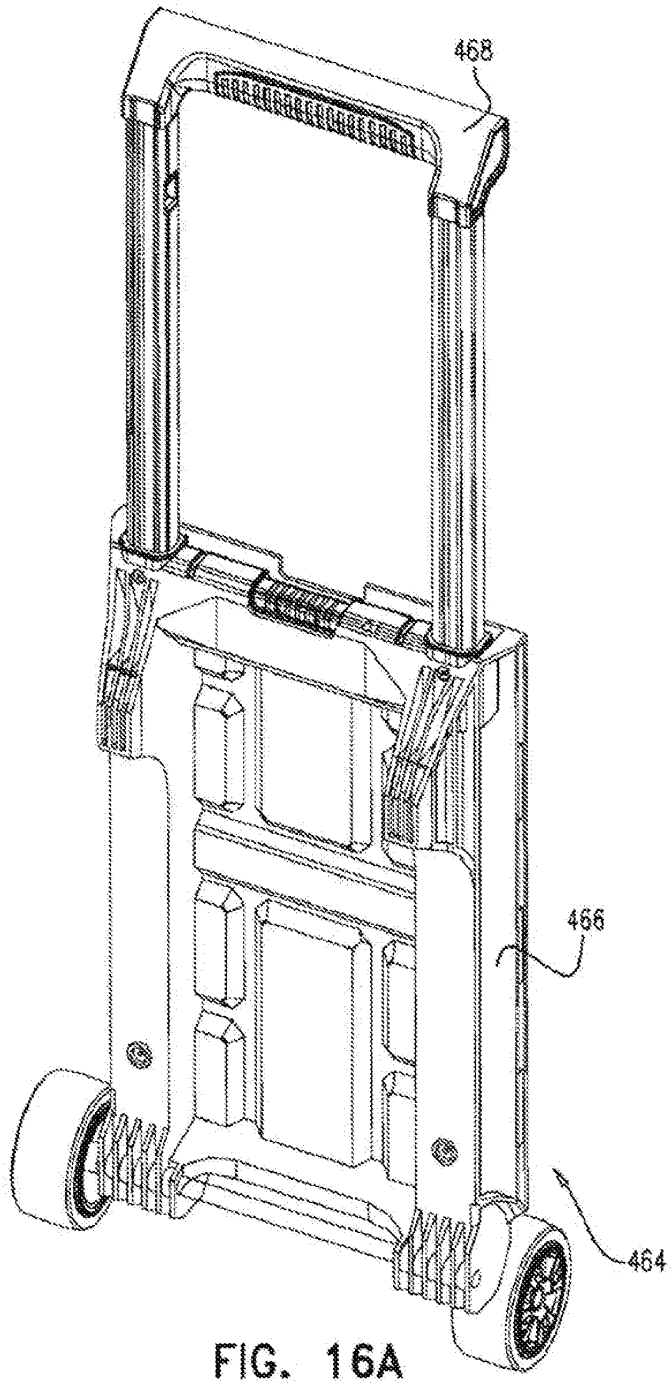


FIG. 16A

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 552
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
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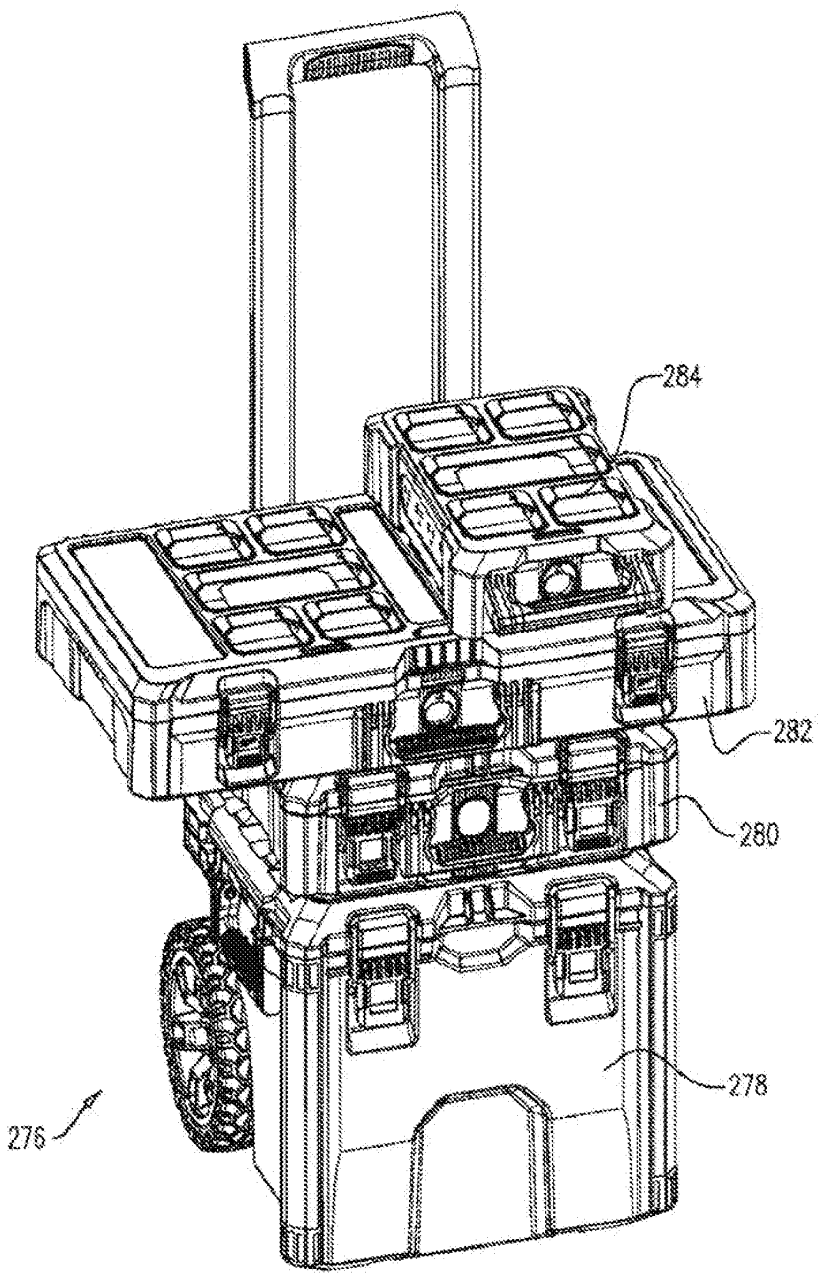


FIG. 16B

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 553
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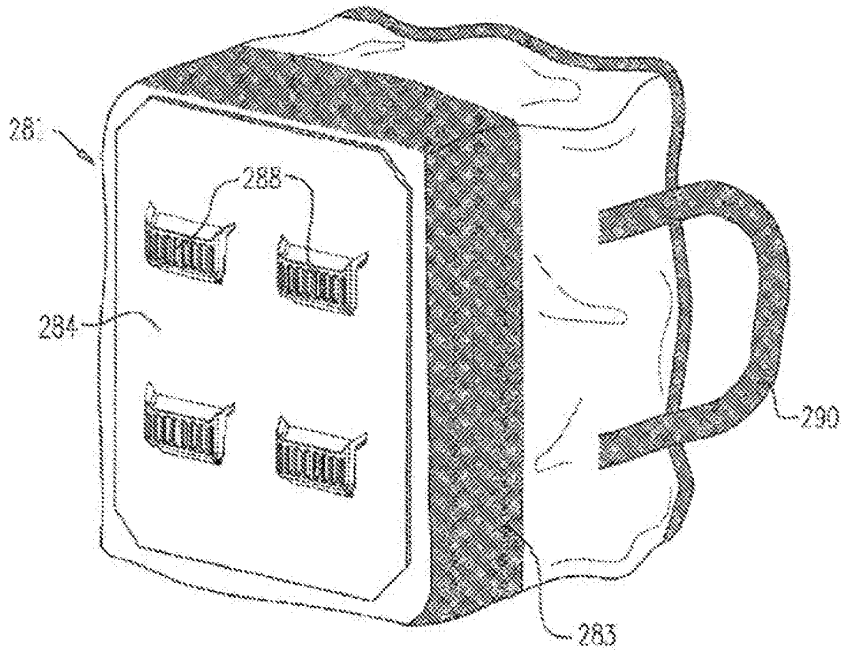


FIG. 17

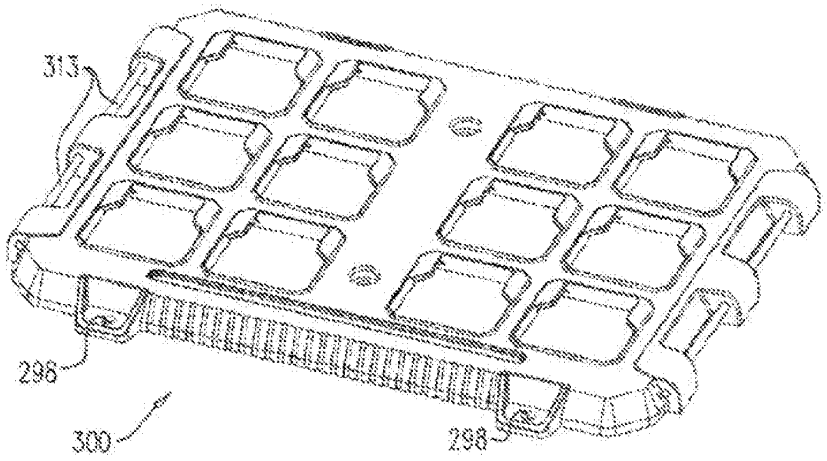


FIG. 18A

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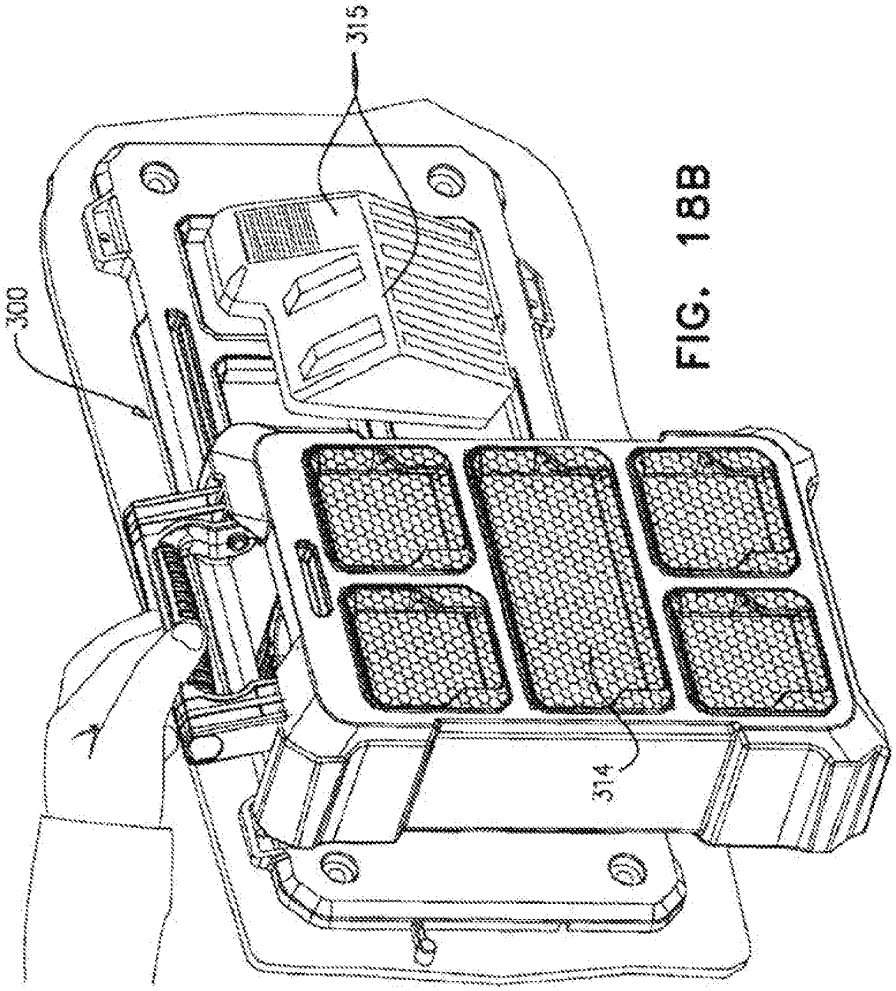


FIG. 18B

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 555
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
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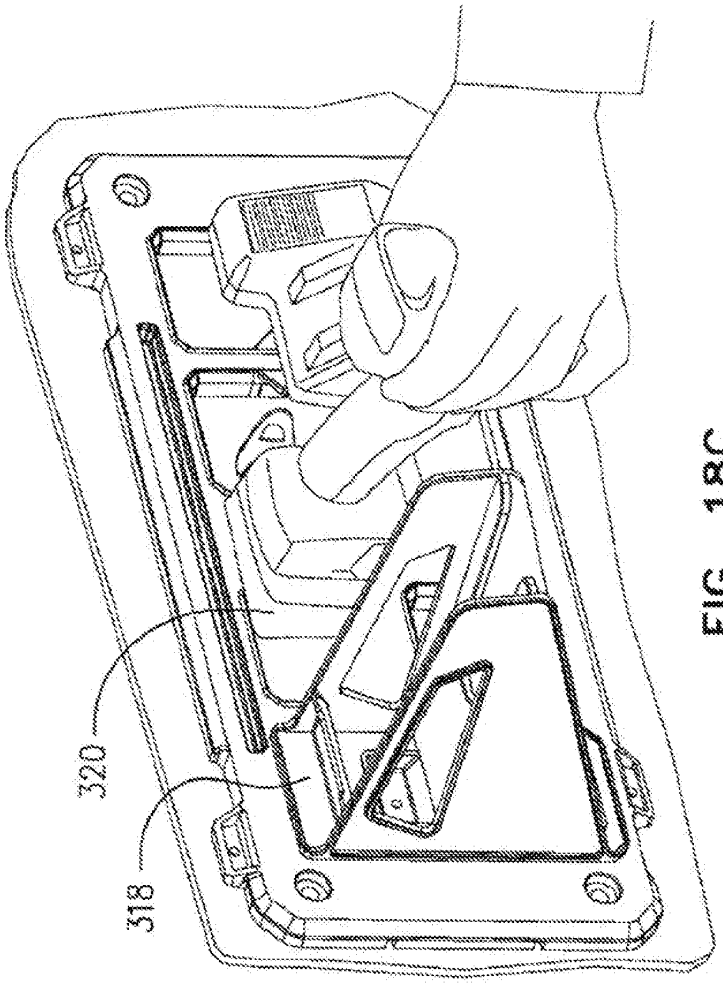


FIG. 18C

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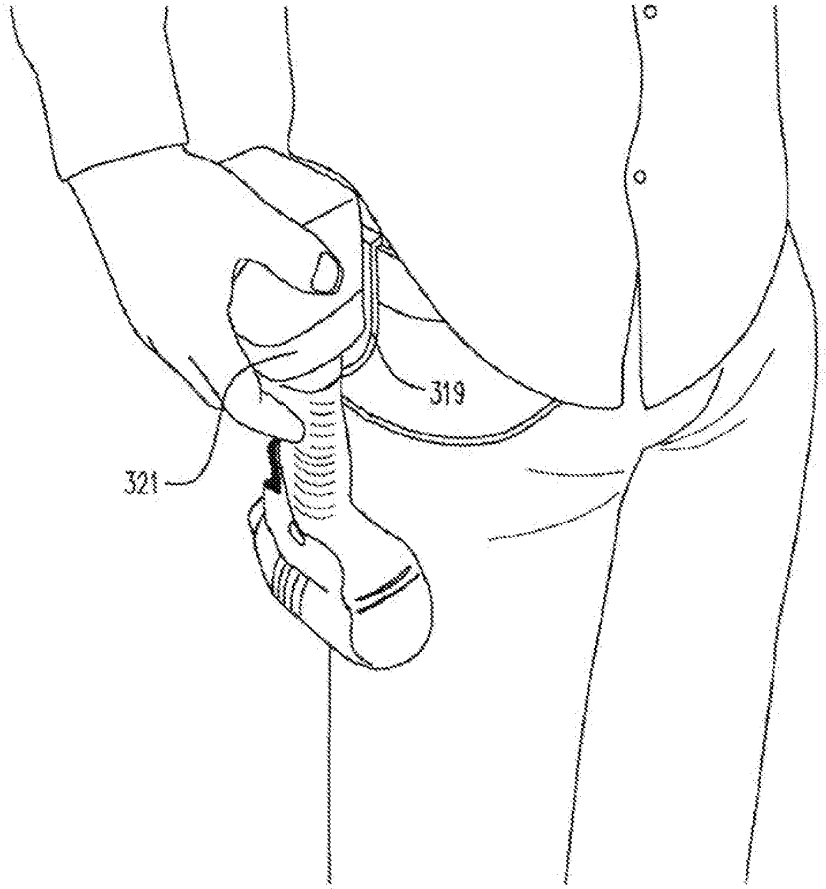
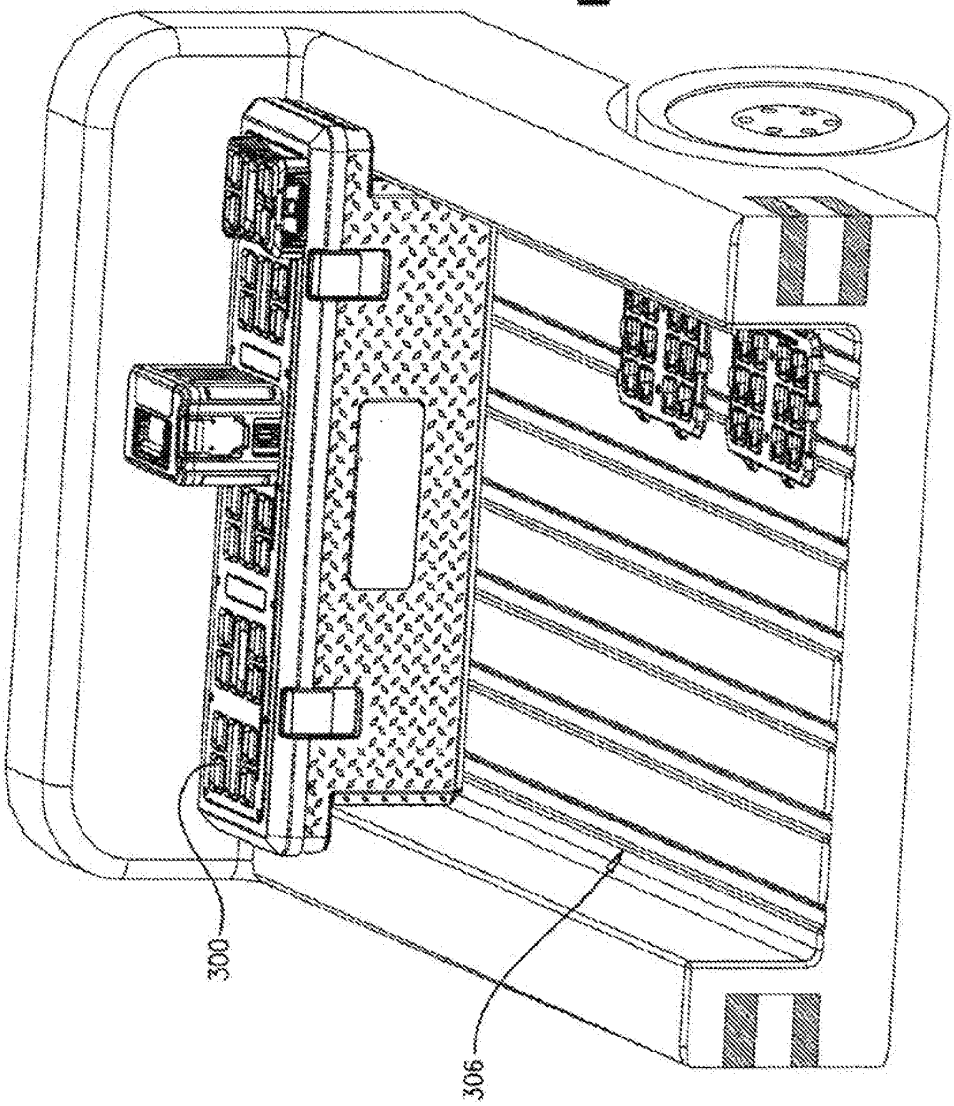


FIG. 19

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FIG. 20



Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 558
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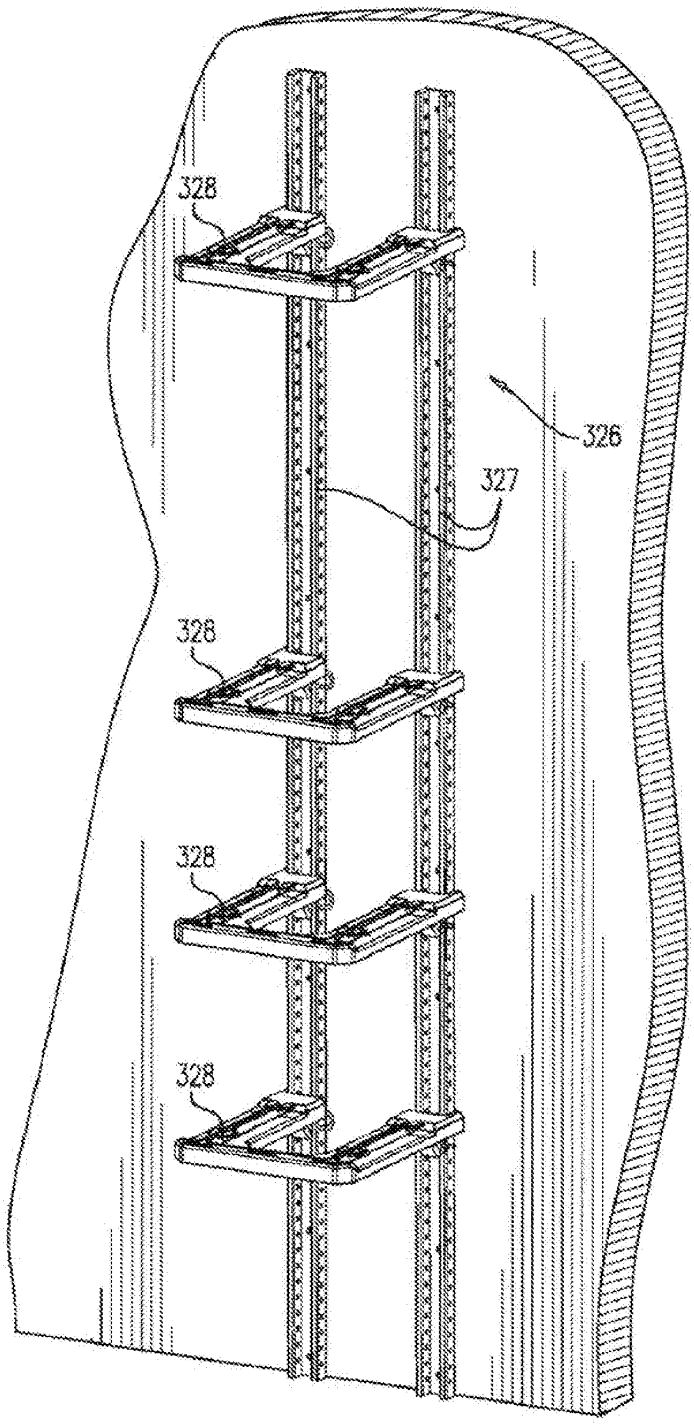


FIG. 21

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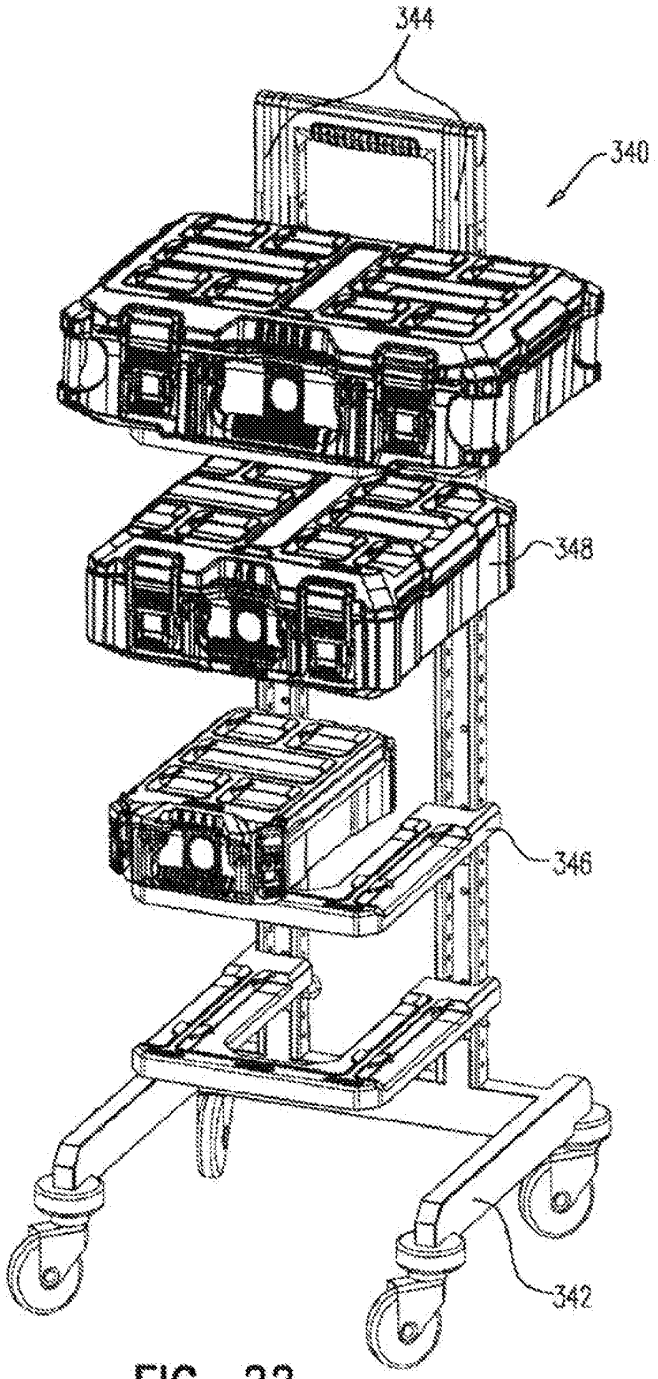


FIG. 22

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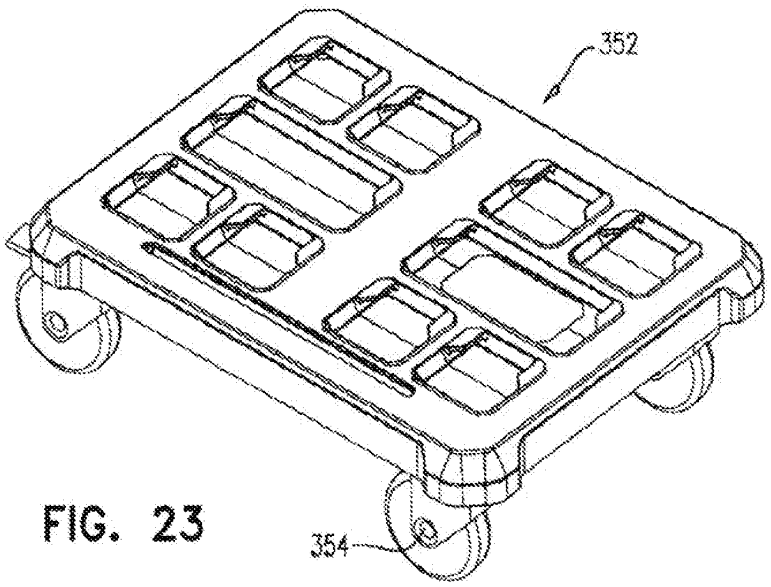


FIG. 23

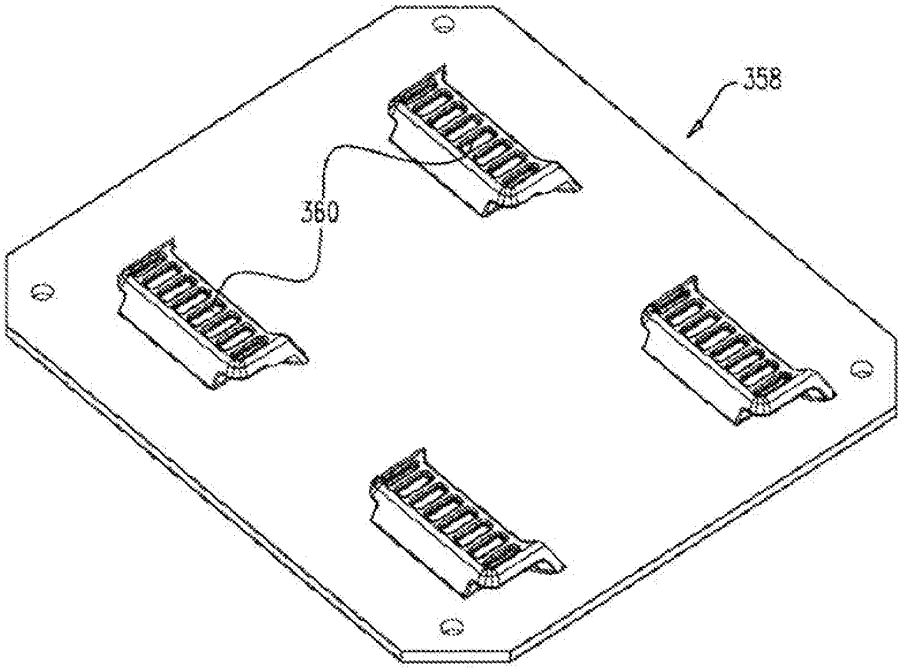


FIG. 24

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UTILITY ASSEMBLY AND COUPLING MECHANISM

CROSS-REFERENCE TO RELATED PATENT APPLICATION

This application is a continuation of U.S. application Ser. No. 15/826,232, filed Nov. 29, 2017, which is a continuation of International Application No. PCT/IL2017/050481, filed Apr. 30, 2017, which claims priority to U.S. Provisional Application No. 62/459,076, filed Feb. 15, 2017 and to U.S. Provisional Application No. 62/330,334, filed May 2, 2016, which are incorporated herein by reference in their entireties.

TECHNOLOGICAL FIELD

The present disclosure is directed to a container assembly and more specifically to a utility assembly comprising two or more detachably attachable utility modules. The disclosure is further concerned with a coupling mechanism facilitating detachably attaching the utility modules to one another.

The term 'utility module' is used hereinafter in its broad meaning and is meant to denote a variety of articles such as, storage containers, travel luggage, tool boxes, organizers, compacted work benches, cable storage, tools (e.g. hand tools, power generators and power sources), communication modules, carrying platforms, locomotion platforms, etc., of any shape and size, and wherein any utility module can be detachably attached to any other utility module.

The term 'utility assembly' as used herein denotes any set of utility modules configured for articulation to one another, either as a stationary unit or locomotive.

GENERAL DESCRIPTION

A first aspect of the disclosure concerns a coupling mechanism configured for readily detachably attaching any first article to any second article, wherein any first article and any second article can be any utility module.

The coupling mechanism comprises a male coupler at a face of one of the first utility module and the second utility module, and a female coupler at a face of the other one of the first utility module and the second utility module, said female coupler has a depressed locking location configured with at least one locking rib extending above a depressed surface and along a sliding path, and having an open edge facing in a first sense; said male coupler has a projecting locking location disposed in register with said depressed locking location and configured with at least one locking tongue extending along said engaging sliding path at a second sense, opposite to said first sense, and configured for arresting engagement at a space between said locking rib and depressed surface, the coupling mechanism further comprises at least one locking member for arresting the first utility module with respect to said second utility module and preventing sliding displacement along said sliding path.

The arrangement is such that at a locked position of a utility assembly the at least one locking tongue of the male coupler engages below said at least one locking rib of the female coupler and the at least one locking member is engaged, thus preventing any respective displacement between the first utility module and the second utility module, and retaining the coupling mechanism at an engaged and locked position.

The term 'first utility module' as used herein denotes any utility module bearing at least one second utility module over a first surface thereof. The second utility module of a utility assembly may comprise three or more stages of utility modules, and functions as first utility module with respect to a third stage utility module mounted thereover and serving in turn as a second utility module.

According to certain embodiments, one or more female couplers are configured at the top face of the first utility module, and one or more male couplers are configured at the bottom face of the second utility module

The disclosed subject-matter is directed to a utility module configured with at least one of a male coupling mechanism and a female coupling mechanism of the disclosure, a module assembly comprising one or more utility modules of the aforementioned type and a set of utility modules of the aforementioned type.

According to a configuration of the first aspect, there is provide a utility assembly comprising at least a first utility module and at least a second utility module, and comprising a coupling mechanism configured between the first utility module and the second utility module; said coupling mechanism comprising at one of a top face of the first utility module and a bottom face of the second utility module one or more depressed locking locations each configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises one or more projecting portions each configured with a locking tongue disposed in register with said one or more depressed locking locations, and at least one locking latch disposed in register with said at least one locking latch arresting location.

The arrangement is such that, at a locked position, the bottom face of the second utility module at least partially rests over the top face of the first utility module, and the one or more projecting tongues are arrested by the corresponding one or more locking ribs, and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, thereby preventing sliding displacement between the first utility module and the second utility module, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

Locking engagement between the second utility module and the first utility module is obtained when the one or more depressed locking locations and the one or more projecting portions are disposed behind one another (though not necessarily aligned).

According to a particular configuration of the coupling mechanism, the one or more depressed locking locations and the one or more locking latch arresting locations are configured at the top face of the first utility module, and the one or more projecting portions and the at least one locking latch are configured at the bottom face of the second utility module. According to this configuration, locking between the first utility module and the second utility module is obtained by positioning the second utility module over the second utility module such that one or more locking tongues of the projecting portions engages with one or more respective locking ribs of the depressed locking locations, and wherein the locking latch interlocks with the respective locking latch arresting location.

The arrangement being such that the attaching engagement between the second utility module and the first utility module takes place when the one or more locking tongues

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and the corresponding one or more respective locking ribs are engaged, thereby preventing vertical separation between the utility modules (i.e. preventing lifting of the second utility module of the first utility module), and further when the locking latch is arrested by the respective locking latch arresting location, thereby preventing sliding displacement of the utility modules one with respect to the other (i.e. sliding displacement of the second module over the first module).

Disengaging the second utility module from the first utility module can be facilitated only after disengaging the locking latch from said locking latch arresting location.

According to a second aspect of the disclosure there is disclosed a coupling mechanism for a utility assembly comprising at least a first utility module and at least a second utility module, said coupling mechanism is configured between the first utility module and the second utility module and comprises at one of a top face of the first utility module and a bottom face of the second utility module with at least one depressed locking location configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises at least one projecting portion with a locking tongue disposed in register with said at least one depressed locking location, and at least one locking latch disposed in register with said at least one locking latch arresting location; and wherein at a locked position the bottom face at least partially rests over the top face, and the at least one projecting tongue is arrested by the corresponding at least one locking rib and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

Engaging the first and second utility modules into the locked position is provided by sliding the second utility module with respect to the first utility module along a sliding path defined by at least one of said at least one locking rib and said at least one locking tongue.

According to one particular configuration the at least one locking rib extends substantially parallel to the sliding path and according to another configuration the at least one locking rib extends substantially perpendicular and intersects the sliding path. A third aspect of the present disclosure is directed to a utility module being a mobile carrier unit and comprising at least one carrier engagement surface, compatible for interlocking engagement in a detachable manner with a first engagement surface of a utility module.

The term carrier unit as used herein denotes any kind of propelled cart configured for detachably attaching and carrying load. The carrier unit may be a hand cart, a mobile tool cart, a mobile workshop, traveling luggage cart, a trolley, etc.

With particular reference to the third aspect, the carrier engagement surface can be larger than the utility module's first engagement surface corresponding with it. In this case, several utility modules may be interlocked simultaneously upon one carrier unit. According to one configuration there is disclosed a carrier unit comprising a manipulating arrangement, a locomotion system, and an engagement surface comprising one or more engaging elements. The carrier unit is designated for detachable interlocking engagement with one or more utility modules, each comprising a first engagement surface configured with one or more first engaging elements compatible for detachable interlocking engagement with the carrier engaging elements.

According to yet configuration there is disclosed an assembly comprising a carrier unit comprising an engagement surface comprising one or more engaging elements, and at least one utility module configured with at least one first engagement surface comprising one or more first engaging elements compatible for detachable interlocking engagement with the carrier unit's engaging elements.

According to a modification of this aspect, there is also provided a container unit comprising a top member configured with a second engagement surface of the utility module, said top member, according to one example constitutes a cover of the utility module.

The arrangement is such that a container unit can be readily and easily applied over and interlockingly articulated to a carrier unit, or over a utility module configured with a second engagement surface mimicking the first engagement surface second engagement surface mimicking the first engagement surface of the carrier unit.

Engagement between the carrier unit and the container, and further between two containers, is facilitated by any locking mechanism of the disclosure hereinabove and hereinafter.

According to a specific example, there is a latching mechanism, wherein the first engaging elements of the carrier unit are configured for interlocking engagement with engaging elements of the mating surface of the respective utility module. The latching mechanism may assume various configurations, e.g. male-female couplings, dovetail couplings, and the like. The arrangement being such that only a minor displacement is required in order to lockingly mount, and respectively detach, a utility module over the carrier unit.

According to one specific configuration, the detachable interlocking engagement mechanism between the carrier engaging elements and the utility module's first engaging elements is a dovetail engagement mechanism, comprising laterally projecting shoulders configured on one of the carrier engagement surfaces and the first engagement surface of a utility module, and a shoulder receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said laterally projecting shoulders are configured for sliding engagement with said shoulder receiving recess.

According to a particular configuration, one or both of the carrier engagement surfaces and the first engagement surface of a respective utility module are configured with depressions, each accommodating respective laterally projecting locking shoulders. Said dovetail engagement mechanism members constitute said engaging elements, wherein said carrier engaging elements comprise one of said dovetail engagement members, while the utility module's first engaging element comprises the respective said dovetail engagement member.

According to another configuration, the detachable interlocking engagement mechanism between the carrier engaging elements and the utility module's first engaging elements is an undercut engagement mechanism, comprising lateral projections configured on one of the carrier engagement surfaces and the first engagement surface of a container unit, and a receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said lateral projections are configured for engagement with said receiving recess.

Interlocking engagement of the utility module and the carrier unit takes place by placing the first engagement surface of a utility module [illegible] surface, such that the utility module's first engaging ele-

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ments are disposed shifted over the respective carrier engaging elements of the carrier unit, and are then slidingly shifted to obtain sliding interlocking engagement therebetween.

The detachable interlocking engagement mechanism may further comprise a locking mechanism configured for preventing unintentional detaching of the slidingly engaging elements once they are fully interlocked, i.e. to prevent detaching of the utility module from the carrier unit or from another utility module.

According to one configuration, the locking mechanism, comprises a locking pin that is configured for snapingly protruding from one of the engagement surfaces into a designated nook on the other engagement surface. This prevents the engaging surfaces from sliding relatively to each other, and by thus it prevents said engaging elements from being slidingly separated once interlocked.

According to one configuration, the carrier engagement surface of the carrier unit constitutes a top wall of the carrier unit, when the carrier unit is balanced horizontally to the ground, and wherein the utility module's first engagement surface constitutes a bottom wall of the container unit, when the utility module is balanced horizontally to the ground. The utility module can further comprise a second engagement surface constituting its top wall, or a cover, when the utility module is balanced horizontally to the ground. The second engagement surface of the utility module simulates the carrier engagement surface as it is compatible for engaging with another utility module's first engagement surface.

Any one or more of the following features, designs and configurations, can be implemented in a utility module, a utility assembly, locking mechanism, and the carrier unit and assembly according to the present disclosure, individually or in various combinations thereof:

A single locking rib can extend at rear end of a depressed locking location (i.e. the female coupler may comprise a single locking rib) and substantially perpendicular to the sliding path;

Two locking ribs can extend at side edges of a depressed locking location (i.e. the female coupler may comprise two locking ribs) and disposed substantially parallel to the sliding path;

Two locking ribs can each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path;

The utility assembly can be modular wherein a top face of a first utility module can interlock with a bottom face of a second utility module disposed thereover in a substantially fully overlapping relation, or with a bottom face of at least one second utility module only partially overlapping therewith;

A second utility module overlapping a significant portion of a first utility module can be configured with a single release latch for displacing several locking latches articulatai therewith;

Two or more second utility modules can be mounted over a first utility module, each being independently detachable attachable over the first utility module;

The at least one second utility module is configured for snap-type locking over the first utility module;

A release latch for displacing the locking latch into disengagement from the locking latch arresting location can be disposed at a front face of the respective second utility module;

The at least one locking latch and the at least one locking latch arresting location can be disposed at a front portion of the respective utility modules;

At least one of the first utility module and the second utility module are configured with a gliding surface facilitating displacement and positioning the respective second utility module at the locking position with respect to the first utility module;

The gliding surface reduces tolerances between the projecting portion and the depressed locking location receiving same;

One or both of the locking tongue and locking rib can be configured with a slanting surface at corresponding orientation, along the sliding path, for reducing or substantially elimination tolerance therebetween;

One or both of a front edge of the projecting portion and a corresponding front edge of the depressed locking location can be slanted for gliding positioning of the second utility module into true locking position over the first utility module;

The locking latch can be configured for displacement in a direction substantially normal to a respective face of a utility module;

The locking latch can be spring biased and configured for normally projecting from a face of the respective first or second utility module;

The locking latch can be manipulable to be opened through an opening configured at a front wall of the respective utility module;

Corners of the utility modules can be reinforced;

One or more of the utility modules can be a container module, and the utility assembly can be a container assembly/tool caddy;

The container module can be compartmented and can be configured with sub-containers and sub-compartments;

The top face of the container module can be configured as a lid or as a functional component of the container module;

A lid of a second container can be opened also when articulated and locked in position over a first container;

A lid of a first container can be opened also when a second container is articulated and locked in position thereabove;

At least one of the container modules can be a locomoting container and can be configured with an arrangement for locomoting said container module. Where the locomoting container is attached to other container modules it can facilitate for locomoting the utility assembly;

The container modules can be configured with carrying arrangement disposed at any one or more of its faces. According to a particular configuration, a front face of the container modules is configured with a carrying handle and according to another configuration side faces of the container modules can be configured with a carrying handle;

Examples of utility modules can be any one or more of a cooler box, a workpiece grip, a power supply (e.g. power bank, generator), hand tools, power tools, a locomotive platform (e.g. a work dolly), powered or not, a tactical unit (e.g. military gear, scientific equipment, communications equipment, personal gear, outdoor gear, etc.);

A tool caddy can be configured with a carrying handle (e.g. telescopic);

A utility module can be a soft-shell container with at least a rigid face portion configured with a male/female coupler;

The utility module can be an interface coupling module, i.e. functions only as a coupling interface;

The interface coupling module can be attached to a surface of any element or object and by different arrangements, fixedly or detachably;

The interface coupling module can be a cargo interface module for a utility vehicle for attaching one or more utility modules to the vehicle;

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The cargo interface module can be a bed cargo module, a roof rack module, etc.;

The interface coupling module can be a surface mount for attaching utility modules, e.g. a floor mount, wall mount, wall rack, etc.;

The interface coupling module can be a tool mount/rack;

The interface coupling module can be belt mount for mounting of utility modules (e.g. a hand tool) to a workers belt;

The interface coupling module can be an interface mount module for coupling two utility modules to one another, e.g. for articulating two utility modules, both configured with a similar male coupler or a female coupler, and wherein the interface mount module is configured at both faces with another of male coupler or a female coupler;

The interface coupling module can be a back pack carrying module, for facilitating attachment and carrying of utility modules;

A top face of a utility module can be configured with a carrying handle, said carrying handle displaceable between a stowed position and a carrying position, wherein at the stowed position said carrying handle at least partially extends within a niche and does not to interfere with the coupling mechanism;

The carrier unit may include one or more auxiliary engagement surfaces positioned on an exterior face of the carrier unit. For example, an auxiliary engagement surface can be configured at a bottom face of the carrier unit;

The carrier unit may include a second engagement surface simulating/mimicking the first engagement surface of the utility module;

A utility module may be configured with one or more auxiliary first and second engagement surfaces;

The carrier engagement surface may be a connectivity platform detachably attached to the exterior surface of the carrier unit, facilitating a cart unit or a carrier unit according to the present disclosure;

One or both of the utility module's first and second engagement surfaces may be detachably attached to an exterior surface of the utility module;

The carrier engagement surface and the utility module's first engagement surface may be like elements;

The utility module's first and second engagement surfaces may be like elements;

The carrier unit's engaging elements and the utility module's first engaging elements may be similar elements;

One engagement surface may include several engaging elements and one locking mechanism;

The coupling mechanism is configured for spontaneous displacement into locking engagement within a locking receptacle, wherein manual interference is required only for unlocking the locking mechanism and detaching a utility module from a respective utility module or carrier unit;

The coupling mechanism can be a spring biased locking pin, normally projecting from a respective engagement surface;

One or both of the carrier unit and the utility module may further include a locking mechanism designated to prevent unintentional separation of the engagement surfaces while they are interlocked;

The locking mechanism is manipulable between an unlocked position in which said engagement surfaces may slide upon each other, and a locked state in which the engagement surfaces may not slide upon each other;

The locking mechanism may be configured with a biasing mechanism for snap arresting at least at its locked state;

The locking mechanism may be configured with a manually operated activating portion for switching between said unlocked and locked positions.

The carrier unit may be assembled together with other carrier units the same way it's assembled with the utility modules;

The locomotion system of the carrier unit may comprise a wheel system (e.g. axially fixed roller wheels, swivel wheels, etc.), a sliding platform, caterpillar tracks, etc;

The locomotion system of the carrier unit comprises, according to a particular example, several fixed axis wheels, wherein the perimeter of said wheels is tangent with a base edge of the carrier unit;

At an assembled configuration, where one or more utility modules are attached to the carrier unit, the assembly can be positioned vertically wherein a side face of the one or more containers rest over a supporting surface. According to a particular example, at this position the carrier unit and container assembly are configured with stability members for retaining their stability while positioned vertically to the ground;

The carrier unit may be stable while positioned horizontally to the ground, by a support system projecting from a bottom face thereof. The support system may comprise friction enhancing surfaces to restrict displacement of the assembly while placed over a bearing surface;

The carrier unit may be foldable to a more compact configuration;

The carrier unit may comprise an external storage box detachably interconnectable to its exterior walls;

The carrier unit may comprise a power supply detachably interconnectable to its exterior walls;

The carrier unit's transporting system may be motorized while powered via said power supply;

The carrier unit may further include a locking mechanism to insure interlocking connection of the engagement surfaces;

The container unit may comprise non-rigid portions.

The carrier unit may comprise at least one manipulating arrangement, configurable between a stowed position in which the manipulating arrangement is retracted, and a manipulating position in which the manipulating arrangement is extracted. The manipulating arrangement may be a telescopic or foldable handle;

The manipulating arrangement may be a gripping handle, a D-grip handle, a T-grip handle, a flexible strap, etc.

EMBODIMENTS

The present disclosure also encompasses embodiment as defined in the following numbered phrases. It should be noted that these numbered embodiments intended to add to this disclosure and is not intended in any way to be limiting.

1. A coupling mechanism configured for readily detachably attaching a first utility module to a second utility module, the coupling mechanism comprising a male coupler at a face of one of the first utility module and the second utility module, and a female coupler at a face of the other one of the first utility module and the second utility module, said female coupler having a depressed locking location configured with at least one locking rib extending above a depressed surface and along a sliding path, and having an open edge facing in a first sense; said male coupler having a projecting locking location disposed in register with said depressed locking location and configured with at least one locking tongue extending [illegible] a second sense, opposite to said first sense, and configured

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for arresting engagement at a space between said locking rib and depressed surface, the coupling mechanism further comprises at least one locking member for arresting the first utility module with respect to said second utility module and preventing sliding displacement along said sliding path.

2. The coupling mechanism of embodiment 1, wherein said female coupler is configured at the top face of the first utility module, and the male coupler is configured at the bottom face of the second utility module.

3. The coupling arrangement of embodiment 1 or 2, wherein the at least one locking rib extends substantially parallel to the sliding path.

4. The coupling arrangement of embodiment 1 or 2, wherein the at least one locking rib extends substantially perpendicular and intersects the sliding path.

5. The coupling arrangement of embodiment 1 or 2, wherein the female coupler comprises a single locking rib extends at rear end of a depressed locking location and substantially perpendicular to the sliding path.

6. The coupling arrangement of embodiment 1 or 2, wherein the female coupler comprises two locking ribs extend at side edges of a depressed locking location and disposed substantially parallel to the sliding path.

7. The coupling arrangement of embodiment 1 or 2, wherein the female coupler comprises two locking ribs each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path.

8. A coupling mechanism for a utility assembly that comprises at least a first utility module and at least a second utility module, said coupling mechanism is configured between the first utility module and the second utility module; one of a top face of the first utility module and a bottom face of the second utility module comprises at least one depressed locking location configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises at least one projecting portion with a locking tongue disposed in register with said at least one depressed locking location, and at least one locking latch disposed in register with said at least one locking latch arresting location; and wherein at a locked position the bottom face at least partially rests over the top face, and the at least one projecting tongue is arrested by the corresponding at least one locking rib and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location, such that engaging the first and second utility modules into the locked position is provided by sliding the second utility module with respect to the first utility module along a sliding path defined by at least one of said at least one locking rib and said at least one locking tongue.

9. The coupling arrangement of embodiment 8, wherein the at least one locking rib extends substantially parallel to the sliding path.

10. The coupling arrangement of embodiment 8, wherein the at least one locking rib extends substantially perpendicular and intersects the sliding path.

11. The coupling arrangement of embodiment 8, wherein a single locking rib extends at rear end of a depressed locking location and substantially perpendicular to the sliding path.

12. The coupling arrangement of embodiment 8, wherein two locking ribs extend at side edges of a depressed locking location and disposed substantially parallel to the sliding path.

13. The coupling arrangement of embodiment 8, wherein two locking ribs each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path.

14. The coupling arrangement of any one of embodiments 8 to 13, further comprising a release latch for displacing the locking latch into disengagement from the locking latch arresting location can be disposed at a front face of the respective second utility module.

15. The coupling arrangement of any one of embodiments 8 to 14, wherein the at least one locking latch and the at least one locking latch arresting location are disposed at a front portion of the respective utility modules.

16. The coupling arrangement of any one of embodiments 8 to 15, wherein the locking latch is configured for displacement in a direction substantially normal to a respective face of a utility module.

17. The coupling arrangement of any one of embodiments 8 to 16, wherein locking latch is spring biased and configured for normally projecting from a face of the respective first or second utility module.

18. The coupling arrangement of any one of embodiments 8 to 17, wherein the locking latch is manipulable to be opened through an opening configured at a front wall of the respective utility module.

19. The coupling arrangement of any one of embodiments 1 to 18, wherein one or both of the locking tongue and locking rib are configured with a slanting surface at corresponding orientation along the sliding path.

20. The coupling arrangement of any one of embodiments 1 to 19, wherein one or both of a front edge of the projecting portion (or the projecting locking location) and a corresponding front edge of the depressed locking location are slanted for gliding positioning of the second utility module into locking position over the first utility module.

21. The coupling mechanism of any one of embodiments 1 to 20, wherein the first utility module is configured for detachably attaching one or more second utility modules thereto.

22. A coupling mechanism for a utility assembly comprising at least a first utility module and at least a second utility module, said coupling mechanism is configured between the first utility module and the second utility module and comprises at one of a top face of the first utility module and a bottom face of the second utility module with at least one depressed locking location configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises at least one projecting portion with a locking tongue disposed in register with said at least one depressed locking location, and at least one locking latch disposed in register with said at least one locking latch arresting location; and wherein at a locked position the bottom face at least partially rests over the top face, and the at least one projecting tongue is arrested by the corresponding at least one locking rib and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

23. A utility assembly [illegible] module and at least a second utility module, and comprising

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a coupling mechanism according to any one of embodiments 1 to 21, the coupling mechanism being configured between the first utility module and the second utility module.

24. A utility assembly comprising at least a first utility module and at least a second utility module, and comprising a coupling mechanism for readily detachably attaching the first and second utility modules, the coupling mechanism being configured between the first utility module and the second utility module; said coupling mechanism comprising at one of a top face of the first utility module and a bottom face of the second utility module one or more depressed locking locations each configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises one or more projecting portions each configured with a locking tongue disposed in register with said one or more depressed locking locations, and at least one locking latch disposed in register with said at least one locking latch arresting location, such that at a locked position, the bottom face of the second utility module at least partially rests over the top face of the first utility module, and the one or more projecting tongues are arrested by the corresponding one or more locking ribs, and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, thereby preventing sliding displacement between the first utility module and the second utility module, and disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

25. The utility assembly of embodiment 24, wherein the first and second utility modules are in a locking engagement when said one or more depressed locking locations and the one or more projecting portions are disposed behind one another.

26. The utility assembly of embodiment 24 or 25, wherein said one or more depressed locking locations and said one or more locking latch arresting locations are configured at the top face of the first utility module, and the one or more projecting portions and the at least one locking latch are configured at the bottom face of the second utility module.

27. The utility assembly of any one of embodiments 24 to 26, wherein at least one second utility module is configured for snap-type locking over the first utility module.

28. The utility assembly of any one of embodiments 24 to 27 wherein engaging the first and second utility modules into the locked position is provided by sliding the second utility module with respect to the first utility module along a sliding path defined by at least one of said at least one locking rib and said at least one locking tongue.

29. The utility assembly of any one of embodiments 24 to 28, wherein the at least one locking rib extends substantially parallel to the sliding path.

30. The utility assembly of embodiment 29, wherein the at least one locking rib extends substantially perpendicular and intersects the sliding path.

31. The utility assembly of embodiment 29, wherein a single locking rib extends at rear end of a depressed locking location and substantially perpendicular to the sliding path.

32. The utility assembly of embodiment 29 wherein two locking ribs extend at side edges of a depressed locking location and disposed substantially parallel to the sliding path.

33. The utility assembly of embodiment 29, wherein two locking ribs each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path.

34. The utility assembly of any one of embodiments 24 to 33, wherein a top face of a first utility module interlocks with a bottom face of a second utility module disposed thereover in a substantially fully overlapping relation, or with a bottom face of at least one second utility module only partially overlapping therewith.

35. The utility assembly of any one of embodiments 24 to 33, wherein the second utility module overlaps a significant portion of a first utility module and is configured with a single release latch for displacing several locking latches articulated therewith.

36. The utility assembly of any one of embodiments 24 to 35, further comprising a release latch for displacing the locking latch into disengagement from the locking latch arresting location can be disposed at a front face of the respective second utility module.

37. The utility assembly of any one of embodiments 24 to 36, wherein the locking latch is configured for displacement in a direction substantially normal to a respective face of a utility module.

38. The utility assembly of any one of embodiments 24 to 37, wherein the locking latch is spring biased and configured for normally projecting from a face of the respective first or second utility module.

39. The utility assembly of any one of embodiments 24 to 38, wherein two or more second utility modules can be mounted over a first utility module, each being independently detachable attachable over the first utility module.

40. The utility assembly of any one of embodiments 24 to 39, wherein at least one of the first utility module and the second utility module are configured with a gliding surface facilitating displacement and positioning the respective second utility module at the locking position with respect to the first utility module.

41. The utility assembly of any one of embodiments 24 to 40, wherein one or more of the utility modules is a container module, and the utility assembly is a container assembly or a tool caddy.

42. The utility assembly of embodiment 41, wherein the container module is compartmented and optionally configured with sub-containers and sub-compartments.

43. The utility assembly of embodiment 41 or 42, wherein a top face of the container module is configured as a lid or as a functional component of the container module.

44. The utility assembly of any one of embodiments 41 to 43, wherein the container modules is a locomoting container, configured with an arrangement for locomoting said utility assembly.

45. The utility assembly of any one of embodiments 41 to 44, wherein the container modules is configured with a carrying arrangement disposed at any one or more of its faces, optionally being a carrying handle.

46. The utility assembly of any one of embodiments 24 to 40, wherein one or more of the utility modules is a soft-shell container with at least a rigid face portion.

47. The utility assembly of any one of embodiments 24 to 40, wherein said first utility module is a mobile carrier unit.

48. The utility assembly of any one of embodiments 24 to 47, further comprising a locking mechanism for preventing unintentional separation of the modules while they are interlocked.

49. The utility assembly of any one of embodiments 24 to 48, wherein the first utility module is configured for detachably attaching at least two second utility modules thereto.

50. A mobile carrier unit comprising at least one carrier engagement surface, configured for detachably engaging a utility assembly in a detachable manner with a first engagement surface.

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of a utility module, said carrier engagement surface having (i) one or more depressed locking locations each configured with a locking rib and at least one locking latch arresting location, configured for engagement with said first engagement surface of a utility module that comprises at least one locking latch and one or more projecting portions, each projecting portion being configured with a locking tongue, or (ii) at least one locking latch and one or more projecting portions each configured with a locking tongue for engagement with said first engagement surface of a utility module that comprises one or more depressed locking locations, each depressed locking locations configured with a locking rib and at least one locking latch arresting location.

51. The mobile carrier unit of embodiment 50, wherein once associated with the utility module, said locking tongue becomes disposed in register with said one or more depressed locking locations, and at least one locking latch become disposed in register with said at least one locking latch arresting location.

52. The mobile carrier unit of embodiment 50 or 51, configured for detachable interlocking engagement with one or more utility modules, each utility module comprising a first engagement surface.

53. The mobile carrier unit of any one of embodiments 50 to 52, further comprising at least one of a manipulating arrangement and a locomotion system.

54. An assembly comprising a mobile carrier unit of any one of embodiments 50 to 53 having at least one carrier engagement surface, and at a least one utility module having a first engagement surface, the utility module being detachably interlocked with the mobile carrier unit by engaging said first engagement surface with said carrier engagement surface.

55. The assembly of embodiment 54, wherein the mobile carrier unit and the at least one utility module are detachably interlocked with one another by a dovetail engagement mechanism, that comprises laterally projecting shoulders configured on one of the carrier engagement surfaces and the first engagement surface of a utility module, and a shoulder receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said laterally proj ecting shoulders are configured for sliding engagement with said shoulder receiving recess.

56. The assembly of embodiment 55, wherein one or both of the carrier engagement surfaces and the first engagement surface of a respective utility module are configured with depressions, each accommodating respective laterally projecting locking shoulders.

57. The assembly of embodiment 54, wherein the mobile carrier unit and the at least one utility module are detachably interlocked with one another by an undercut engagement mechanism, comprising lateral projections configured on one of the carrier engagement surfaces and the first engagement surface of a container unit, and a receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said lateral projections are configured for engagement with said receiving recess, such that interlocking engagement of the utility module and the carrier unit takes place by placing the first engagement surface of a utility module over the carrier engagement surface, such that the utility module's first engaging elements are disposed shifted over the respective carrier engaging elements of the carrier unit, and are then slidingly shifted to obtain sliding interlocking engagement therebetween.

58. The assembly of any one of embodiments 54 to 57, further comprising a locking mechanism configured for preventing unintentional detaching of the utility module from the carrier unit.

59. The assembly of embodiment 58, wherein the locking mechanism comprises a locking pin that is configured for snapingly protruding from one of the engagement surfaces into a designated nook on the other engagement surface.

60. An interface coupling module comprising at least one engagement surface, compatible for interlocking engagement in a detachable manner with a first engagement surface of a utility module, said interface coupling module comprising an engagement surface having (i) one or more depressed locking locations each configured with a locking rib and at least one locking latch arresting location, configured for engagement with said first engagement surface of a utility module that comprises at least one locking latch and one or more projecting portions, each projecting portion being configured with a locking tongue, or (ii) at least one locking latch and one or more projecting portions each configured with a locking tongue for engagement with said first engagement surface of a utility module that comprises one or more depressed locking locations, each depressed locking locations configured with a locking rib and at least one locking latch arresting location.

61. The interface coupling module of embodiment 60, being configured for detachable or fixed attachment to a surface of an object.

62. The interface coupling module of embodiment 60 or 61, being a cargo interface module for a utility vehicle configured for attaching one or more utility modules to the vehicle.

63. The interface module of embodiment 60 or 61, being a surface mount for attaching utility modules.

64. The interface module of embodiment 60 or 61, being a tool mount or a tool rack.

65. The interface module of embodiment 60 or 61, being a belt mount for mounting of utility modules to a workers belt.

66. The interface module of embodiment 60 or 61, being an interface mount module for coupling two utility modules to one another.

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: FIGS. 1A to 6G are directed to a first example of a locking mechanism, wherein:

FIG. 1A is a top perspective view of a container assembly according to an example of the present disclosure;

FIG. 1B is an exploded perspective view of the container assembly of FIG. 1A;

FIG. 1C is a bottom, front perspective view of FIG. 1B;

FIG. 1D is a bottom, rear perspective view of FIG. 1B;

FIG. 2A is a sectioned portion along line A-A in FIG. 1A;

FIG. 2B is a sectioned portion along line B-B in FIG. 1A;

FIG. 2C is a sectioned portion along line C-C in FIG. 1A;

FIGS. 3A to 3D are consecutive steps illustrating locking engagement of the locking tongue of the second container with the respective locking rib of the first container;

FIGS. 4A to 4D are consecutive steps illustrating locking engagement of the locking latch of the second container with the respective locking [illegible] container;

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FIGS. **5**A to **5**E schematically demonstrate modularity of a container assembly according to the disclosure;

FIGS. **6**A to **6**G are various combinations of a modular container assembly according to examples of the present disclosure.

FIGS. **7** to **12** are directed to a carrier unit and another example of a locking mechanism, wherein:

FIG. **7**A is container carrier assembly according to an example of the disclosure, illustrating a top, left perspective view of a container unit, mounted on top of a carrier unit;

FIG. **7**B is a top, left perspective view of a second container unit, mounted on top of a first container unit, which in turn is mounted on top of a carrier unit according to an example of the present disclosure;

FIG. **8**A is a top, left perspective view of a carrier unit, illustrating the carrier engagement surface in further detail;

FIGS. **8**B and **8**C are a top and a bottom perspective view of a carrier unit, illustrating the container unit's first engagement surface in further detail;

FIG. **9**A is a side section along line F-F in FIG. **7**A, illustrating the container unit and the carrier unit unattached;

FIG. **9**B is a side section along line F-F in FIG. **7**A illustrating the container unit and the carrier unit attached;

FIG. **9**C is a close-up view of FIG. **9**B;

FIG. **9**D is a sectional view along line F-F in FIG. **7**A illustrating the interlocking engagement of the carrier engaging elements together with the container unit's first engaging elements;

FIG. **10**A is a sectioned view along line D-D in FIG. **7**A, illustrating the locking mechanism;

FIG. **10**B is an enlarged image of the portion marked M in FIG. **10**A;

FIG. **11**A illustrates different sizes of container units forming an assembly, at a tilted orientation;

FIG. **11**B illustrates an assembled configuration balanced vertically relatively to the ground;

FIG. **12**A shows a container assembly wherein the female coupler comprises two locking ribs extending at respective side edges of two neighboring depressed locking locations;

FIG. **12**B is a section along line H-H in FIG. **12**A;

FIG. **12**C illustrates the utility module apart from the container and flipped, so as to expose the mating coupling mechanism.

FIGS. **13**A-**13**D, **14**A-**14**C, **15**A-**15**B, **16**A-**16**B, **17**, **18**A-**18**C, and **19**-**24** are different embodiments and configurations of utility modules and utility assemblies according examples of this disclosure.

DETAILED DESCRIPTION OF EMBODIMENTS

Reference is first being made to FIGS. **1**A to **6**G, directed to a first configuration of a coupling mechanism. For sake of convenience the utility modules are exemplified as containers and respectively the utility assembly is illustrates as a tool caddy. It is however appreciated that the utility modules can be of any type, shape or size, as discussed hereinabove and as will be exemplified below.

Attention is first directed to FIGS. **1**A to **4**D, illustrating a container assembly generally designated **20**, comprising four containers **22**, **24**, **26** and **28** disposed in a triple stage configuration, the stages designated A, B and C. In the illustrated example containers **24** and **26** of the second stage are half-size and overlap the footprint of the first stage container **22** and the third stage container **28**, wherein the first container **22** is for example a hand tool container and containers **24** to **28** are organizers or the like.

The term 'first container' as used herein denotes a container bearing over a top face thereof at least one other container, said at least one other container denoted herein as a 'second container'. It is thus appreciated that a second container of a container assembly comprising three or more stages of containers' serves as second container when referred to the first stage container, and as a first container when referred to a third stage container mounted thereover. Accordingly, in the illustrated example of FIGS. **1**A-**2**C, container **22** is a first container and containers **24** and **26** are second containers, whilst they function as first containers when discussing locking arrangement with respect to third stage container **28**.

Each of the containers is configured with a lid L constituting a top face of the respective container, said lids being pivotally attached and securely articulated to the respective container through a toggle locking latch **29**. Each top face (see FIG. **1**B) is configured with several depressed locking locations **32** and it is seen that the at least two depressed locking locations are disposed behind one another along imaginary lines I, II and III (though not necessarily aligned).

Each such depressed locking location is in turn configured with a laterally projecting locking rib **36** extending from a rear portion of the depressed locking location **32** towards a front face of the container. The locking rib **36** has a flat top surface **38** substantially flush with a top surface of the respective lid L, and a slanting bottom surface **40**. A front portion **46** of the depressed locking location **32** is slanted too, in the same orientation as bottom surface **40** (i.e. substantially parallel thereto).

Furthermore, the top face, namely lid L of the containers, is configured with at least one locking latch arresting location in the form of a recess **50** disposed at a front portion of the respective top face and configured with a slanted rear wall portion **52** and a right angled front wall portion **53**.

A bottom face **54** of each container **22**, **24**, **26** and **28** is configured with several projecting portions **56**, extending in register with the depressed locking locations **32**, and it is seen that the at least two projecting portions **56** are disposed behind one another along the imaginary lines I, II and III (though not necessarily aligned).

Each projecting portions **56** is configured with a locking tongue **60** laterally projecting rearwards and having a slanted surface **62** corresponding with slanting surface **40** of locking rib **36**. Also, a front portion **66** of the projecting portions **56** slants substantially parallel to the slanted surface **62** of the locking tongue **60**.

It is essential that the at least two depressed locking locations **32** and the at least two projecting portions **56** be disposed behind one another (though not necessarily aligned), as exemplified by imaginary lines I, II and III (though not necessarily aligned).

A plunger-like locking latch **70** is disposed at a front portion of each container, said locking latch **70** disposed in register with the recesses **50** and configured with a slanting rear wall portion **72** and a right angled front wall portion **74**, corresponding with the sloping wall portions of the recesses **50**. The locking latch **70** has an elongate finger engaging aperture **73** (FIG. **2**A) accessible through an aperture **75** formed in register at a front wall face of the respective second container, said locking latch **70** being normally biased to project under force of coiled spring **71**, such that the locking latch **70** is axially displaceable between a projecting, locked position and a temporary retracted position during transition into the locked position.

The locking latch **70** is [illegible] lable between its locking position and its release position.

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such that manipulation of the locking latch to disengage it from the locking latch arresting location **50** can be easily facilitated using one hand simultaneously with gripping the carrying handle **80**. As seen in FIGS. **1A-2C**, manipulating the finger engaging aperture **73**, being part of locking latch **70**, is disposed opposite to and at finger-reach distance from the carrying handle **80** when the handle is at its carrying position tilted upwards. This enables a grab, release and go detachment of the second utility module from the first utility module in a simple single-handed operation.

When it is required to detachably attach a second container over a first container, the former is placed over the later (FIG. **3A**), placing the projecting portions **56** within the depressed locking location **32** (FIG. **3B**) with the locking tongues **60** engaging below and being gradually arrested by the respective locking ribs **36** arresting is obtained (FIG. **3C**) until complete arresting is obtained (FIG. **3D**). Simultaneously, as the locking tongues **60** arrest by the locking ribs **36**, the locking latch **70** of the second container slides into the locking latch arresting location (recess **50**) and finally snaps into locking engagement therewith. It is noted (FIGS. **4A** to **4D**) that first (FIGS. **4B** and **4C**) the locking latch **70** displaces upwards against the biasing effect of spring **71**, and when the second container reaches the final locking position over the first container, the locking latch **70** plunges into arresting position within the recess **50**.

At the locked position the second container is attached over the top face of the first container, such that they can be moved as an integrated unit. Detaching of a second container from a first container is easily facilitated by unlocking, obtained by displacing the locking latch **70** upwards against the biasing effect of spring **71**, whereby the second container can be displaced with respect to the first container and detached therefrom.

As further seen in FIGS. **1A-4D**, each of the containers **22**, **24**, **26** and **28**, is configured at a front face thereof with a tiltable carrying handle **80**, for carrying a respective container or the entire container assembly **20**. Also seen, some of the containers can be configured with fender-like protectors **90** at their corners.

Further attention is now directed to FIGS. **5A** to **5E** demonstrating examples of modularity of a container assembly according to the disclosure. FIG. **5A** is a planner top view of a first container **94** and FIGS. **5B** to **5E** illustrate second containers superimposed over the first container **94**. In FIG. **5B** a second container **96** is substantially as big as the first container **94**, i.e. having the same footprint. In FIG. **5C** a second container **98** is as wide as the first container **94**, however narrower in depth, and disposed at a front portion of the first container. In FIG. **5D** two second containers **99A** and **99B** are mounted over the first container **94** and occupy substantially the entire footprint thereof, whereby each of containers **99A** and **99B** is independently attachable and detachable from the first container **94**, as exemplified hereinabove. In FIG. **5E** two second containers **100A** and **100B** are positioned over the first container **94**, occupying the entire width though narrower in depth and extending from a front portion of the first container **94**.

Turning now to FIGS. **6A** to **6K**, there are illustrated several examples of container assemblies, subassemblies and their components. FIG. **6A** illustrates a disassembled container assembly collectively designated **104** and comprising a base container **106**, a chest of drawers module **108** comprising three drawers, a tool caddy module **110**, a compartmented storage module **112** and a half-sized compartmented storage module **114** (typically two of which). It is noted that the base container is configured for locomoting and comprises at a rear thereof wheels **116** and a telescopic handle **118**.

As can be appreciated from FIGS. **6B** through **6D**, various container assemblies are illustrated, the arrangement is such that in practice any module can constitute either a first container or a second container, as defined hereinabove (though it is more likely that base container **106** serves as a first container).

FIGS. **6E** and **6F** illustrate a chest of drawers module **108**, illustrated separately in FIG. **6E** and mounted over a similar drawer module **108** in FIG. **6F**. It is appreciated that the drawers of each module can be locked at their closed position to prevent spontaneous opening thereof whilst carrying a module. Furthermore, each module **108** is configured with a pair of carrying handles **115** disposed at top side wall portions thereof, to facilitate carrying of the module.

In FIG. **6G** there is illustrated a subassembly comprising a first container in the form of a tool caddy module **110** and second container in the form of a compartmented storage module **112** attached thereto, whilst the lid **119** of the first container is open facilitating access to the contents thereof.

Further attention is now directed to FIGS. **7A** to **16B**, showing a third aspect of the disclosure, namely a utility module being a mobile carrier unit and comprising at least one carrier engagement surface, compatible for interlocking engagement in a detachable manner with a first engagement surface of a second utility module. For sake of example only, the second utility module exemplified in the annexed drawings is in the form of a utility container. It is however appreciated that the utility modules can be of any type, shape or size, as discussed hereinabove and as will be exemplified below. Accordingly, the term container unit as used in the following description denotes any type of a utility module, as discussed herein the specification.

Attention is first directed to FIG. **7A**, illustrating a container carrier assembly generally designated **200** comprising a container unit **202** (utility module) mounted on top of a carrier unit **206**. The carrier unit **206** is equipped with a telescopic manipulating handle **210**, a pair of rear wheels **208** and a set of horizontally stabilizing support legs **212** at a front portion of the carrier unit **206**. The carrier unit **206** and the container unit **202** are engaged in an interlocking engagement via their engagement surfaces, i.e. a carrier engagement surface **216** at a top face of the a carrier unit **206** (best seen in FIG. **8A**), and the container unit's first engagement surface **220** (namely its bottom face; best seen in FIGS. **8B** and **8C**). The container unit **202** is configured with yet a second engagement surface **226** (namely the container's top face), simulating the carrier engagement surface **216**. The container unit **202** further comprises a locking mechanism **230** configured for arresting within a respective notch **231** at the carrier engagement surface **216**, to thereby to prevent displacement and separation of the engagement surfaces **216** and **220** once they are interlocked, as later will be explained.

The carrier engagement surface **216** seen in greater detail in FIG. **8A**, illustrates a top perspective view of a carrier unit **206** with the telescopic handle **210** in a retracted position. The carrier engagement surface **216** comprises multiple carrier engaging elements **236**, depressed from the surface, and designated for interlockingly receiving respective container unit's first engaging elements **240**, projecting from the first engagement surface (bottom face) **220** of the container unit **202**.

Each carrier engaging element [illegible] coupler and has a depressed locking location configured

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with at least one locking rib extending above a depressed surface and along a sliding path and having an open edge facing in a first sense. As seen in the drawings, it is generally constituted by a receiving recessed depression **244** in the carrier engagement surface **216**, configured with a pair of facing locking ribs **248**, forming the aforementioned recess. The locking ribs **248** extend substantially parallel to sliding path of the container unit **202** with respect to the carrier unit **206**, said path (designated P in FIGS. **7A** and **10B**). Further noted, side walls **250** of depressions **244** are sloped in order to allow directing of a container unit's first engaging element **240**, mounted upon it, to its interlocking position.

A corresponding coupler configured at the container unit is a so-called male coupler comprising a projecting locking location disposed in register with said depressed locking location and configured with at least one locking tongue extending along said engaging sliding path at a second sense, opposite to said first sense, and configured for arresting engagement at a space between said locking rib and depressed surface. As seen, a single container unit's engaging element **240** is generally constituted a downwardly projecting outwards protrusion **258**, projecting from the bottom face **220** of the container **202**.

In order to lock the container **202** over the carrier unit **206**, upon placing the container **202** over the carrier engagement surface **216** of carrier unit **206** one must mount the container unit's first engaging elements **240** into the depressions **244** and then slide the container **202** along the sliding path P (i.e. towards the locking ribs **248**) so that the engaging elements **240** engage below said projecting ribs/shoulders **248** and the engaging elements **240** are thus arrested at a space between said locking ribs and the depressed surface, as seen in FIG. **9C**. Interlocking engagement of the container (or any other utility module) can be facilitated by a single male-female locking mechanism of the aforementioned type, or by a plurality of such locking mechanism, at any location over the carrier unit **206**.

The shape and size of the locking members is modular as far as the depression **244** in the carrier engagement surface **216**, can be single or double in size (e.g. **236** and **236A** in FIG. **8A**, respectively), so it is large enough to accommodate two container unit's first engaging elements **240**, or two neighboring container unit's first engaging elements.

Locking/engaging and detaching of this configuration is similar to a single locking module.

The engagement and locking mechanism is modular in the sense that any first article can be easily and readily articulated to a surface of any second article, wherein the articulation is strong and firm (i.e. substantially motionless).

With further reference to FIG. **7B**, there are illustrated two containers **202A** and **202B** articulated over one another, the arrangement being such that the bottom face of the intermediate container **202A** serves for engaging with the top face of the carrier unit **206** and likewise, the top face of the intermediate container **202A** serves for engaging with the bottom face of the top container **202B**, as discussed herein above. The arrangement is such that each stage is lockingly secured by the locking mechanism **230**, wherein each stage can be detached from the stage below upon releasing locking engagement of the respective locking mechanism **230**.

The locking mechanism **230** is shown in further detail in FIGS. **10A** and **10B**. The locking mechanism comprises a locking pin **231** normally biased by spring **233** such that a tip **235** projects from a bottom surface of the container **202** (see also FIG. **8B**) and is configured for snap arresting within a respective notch **231** configured at the engagement surface **216** of the carrier unit **206** (seen also in FIG. **8A**).

The locking pin **231** is slidable within a race at the side wall of the container, and comprises a finger manipulating portion at **237** (accessible through an opening at the side wall of the container), for displacing the locking pin, against the biasing effect of spring **233**, into its disengaged position, thus facilitating sliding the container along the path P into disengagement from the carrier unit (or respective other container or utility module). The carrier unit **206** is further configured at a bottom end, with a pair of stability supports **264** (FIGS. **8A**, **11B**), configured for supporting the carrier unit, with or without a container attached thereto, at an upright, i.e. vertical position, thus preventing it from tipping over, in particular with containers or any other utility module articulated thereto. Stability supports **264** can be, according to a particular configuration, an extension of the telescopic handle **210**, whereby the stability supports are functional as such only when the handle is fully contracted. However, in the illustration of FIGS. **16A-16B** the utility assembly **253** is maintained at its upright position owing to said stability supports **264** and further bearing over a side face **266** of the intermediate container **202A**, being substantially flush with a bottom face of the stability supports **264**.

With further reference to FIGS. **12A** to **12C** there is illustrated a modification of articulation between a first utility module (container **300** in the particular example) and a second utility module (two work-piece supports **304** in the particular example). The container **300** is substantially similar to that illustrated in the previous examples, wherein the cover/lid **308** is configured with a plurality of female coupler members **310**, each configured with a depressed locking location and a pair of locking ribs extending above the depressed surface and along a sliding path. The opposing locking ribs **312A** and **312B** have an open edge facing in a first sense (the introducing direction).

In the examples hereinbefore, engagement with a corresponding male coupler took place within the vicinity of a single coupling element, i.e. over two engaging ribs **312A** and **312B** of a single depressed locking location facing each other. However, in the example of FIGS. **12A-12C** engagement of the work-piece supports **304** takes place over two engaging ribs **312A** and **312B** of two neighboring depressed locking locations **308A** and **308B**. Accordingly, the male coupler of the two work-piece supports **304** is configured for arresting with the two engaging ribs **312A** and **312B** by two individual (separate) male couplers **316A** and **316B**, each configured for arresting one of the respective engaging ribs **312A** and **312B**. Arresting of the male projections **316** takes place as discussed before, by arresting below the respective engaging ribs, within the space at the depressed locking location, in spite of the relative narrow body structure of the work-piece supports **304**, they are each configured with a locking mechanism **330**, similar to locking mechanism **230** discussed hereinbefore.

Turning now to FIGS. **13A-13D**, **14A-14C**, **15A-15B**, **16A-16B**, **17**, **18A-18C**, and **19-24**, there are illustrated various examples of utility modules, utility assemblies and various configurations according to the disclosure.

FIG. **13A** illustrates a utility module assembly generally designated **400**, comprising a wheeled base container **402** supporting an intermediate container **404**, bearing in turn a cooler box **406** and a power unit **408** disposed side by side over the intermediate container. At least the intermediate container **404** is configured at a bottom face thereof with a male-type coupling arrangement, for attachment over the cover of the base container, said cover configured with a respective female coupling arrangement. The intermediate container **404** is configured with a similar

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female coupling arrangement, and can thus engage with one the utility modules **406** and **408**, each configured at its bottom face with a respective male-type coupling arrangement.

It is seen in FIGS. **13B** through **13D** that the intermediate container **404** is fitted with a pivotal carrying handle **418** articulated at the top side walls thereof. The carrying handle has a thickness t and the arrangement is such that at the stowed/folded position (FIGS. **13B**, **13D**) the handle **418** is received within a peripheral groove **422** extending over a top edge of the intermediate container **404** and a peripheral groove **424** extending at a bottom edge of the utility modules **408** and **406** (cooler box **406** and a power unit **408**), such that the handle **418** does not constitute an obstacle in mounting and interlocking a utility module over another utility module. It is also seen that at least some of the utility modules are configured with side handles **428** serving both as carrying handles and as bumpers.

FIGS. **14A** to **14C** illustrate a first utility module in the form of a container **430** supporting two detachable workpiece-piece supports **432** (attached as discussed herein before with reference to FIGS. **12A-12C**). FIG. **14C** illustrates a utility module in the form of a work surface **436** configured with a vice race **438**, so that a vice **440**, or other workshop tools can be used. The workpiece-piece supports **432** are configured with a male type coupling having projecting locking locations **444** for engaging with respective female couplers.

In FIGS. **15A** and **15B** there is illustrated a back-rack **450** being a substantially rigid platform having a carrying handle **451** and configured at one side thereof with a pair of adjustable shoulder harnesses **452**, and an adjustable waist harness **454**. The other side of the back-rack is configured as a universal utility mounting platform **458**, configured with a plurality of attachment locations **460**. In the illustrated example all attachment locations **460** are so-called female attachments (as discussed hereinabove in detail), however it is appreciated that the attachment locations can just as well be male-type attachments, or a combination of male and female attachments. According to yet an example (not shown), one side of the carrying platform can be configured with male-type attachments, and an opposite side of the platform be configured with female-type attachments, wherein a used has the choice of attaching the platform to the harness system at an orientation of choice.

In FIG. **16A** there is illustrated a utility module in the form of a wheeled carrying unit **464** (shown from a bottom side), similar to that disclosed in connection with FIGS. **7A** to **11B**. The carrying unit **464** comprises a rigid platform **466** fitted at a top face thereof with a female/male attaching arrangement in accordance with the disclosure, such that any utility module according to the disclosure can be detachably attached thereto. Also provided is a telescopic manipulating handle **468** and a pair of wheels **466**. The carrying unit can be fitted with a collapsible support plate configuring it into a pushcart (not shown).

FIG. **16B** shows a utility assembly **276** comprising a wheeled base container **278** interlocked with a first intermediate container **280** mounted thereover (constituting a second stage of the assembly), and a second intermediate container **282** mounted thereover (constituting a third stage of the assembly **276**), there being yet a fourth stage utility module container **284** mounted over the second intermediate container **282**.

Whilst the second intermediate container **282** has a wider footprint than the first intermediate container **280**, this does not constitute any difficulty as far as attaching it over the second intermediate container **282**, and further, the top face of the second intermediate container **282** has a great surface suited for articulation thereof of several fourth stage utility modules (only one shown).

FIG. **17** shows a carrying bag **281** having soft side walls **283** (in the example illustrated made of fabric), however fitted with (integrally or detachable) an articulation platform base **284**, said articulation platform made of a firm rigid material and is configured with four male-type coupling locations **288** of the type disclosed hereinabove. The carrying bag **281** has a carrying strap **290** useful for hand held or shoulder carrying of the bag.

FIG. **18A** shows a rigid coupling platform **300**, configured with a plurality of female coupling locations (of the type disclosed herein) and further configured with bolt eyes **298** for securing to any desired surface, and carrying bars **313**.

The coupling platform **300** can be attached for example to a truck bed **306** (FIG. **20**), directly over the truck bed or over a cargo container attached to the truck. The coupling platform **300** can be attached to a wall, as in FIG. **18B**, wherein a plurality of various utility modules can be articulated thereto. For example, utility modules can be an electric charger **315** of a power tool, a wall mounted sorting container **314**, a hand tool rack **318** (FIG. **18C**), a tool coupling adaptor **320** (FIG. **18C**), etc.

In FIG. **19** there is illustrated a belt-mount **319** configured as a female coupler according to the disclosure, wherein a tool **321** or a bag/pouch configured with a male coupler can be detachably attached thereto.

In FIG. **21** there is illustrated a wall rack **326** comprising four utility modules in the form of articulation platforms **328** (mountable at different elevations about the wall supports **327**) each configured for bearing and attaching thereto any utility module in accordance with the disclosure.

In FIG. **22** there is illustrated a mobile work stand **340** comprising a wheeled base **342** supporting two racks **344** with four utility modules in the form of articulation platforms **346** (mountable at different elevations about the wall supports **327**) each configured for bearing and attaching thereto any utility module (e.g. containers **348**) in accordance with the disclosure.

In FIG. **23** the utility module is in the form of a dolly **352** configured with wheels **354** and having a top surface configured with an array of female type couplings, as discussed.

In FIG. **24** there is illustrated a utility coupling platform **358** suited for articulation to any desired article (e.g. a bag, a tool, etc.). The utility coupling platform is configured at least at one face thereof with a male coupling locations **360** mimicking the coupling arrangement of the disclosure, rendering it suitable for articulation with a coupling system according to the disclosure.

What is claimed is:

1. A container assembly comprising:

a first container comprising:

a first coupler extending from a first face of the first container, the first coupler comprises two sidewalls, a back wall, and a rib, the back wall extends between the two sidewalls, the two sidewalls and the back wall project from a depressed surface of the first face, and the rib extends from the back wall in a first direction above the depressed surface; and

a latch recess; and

a second container comprising:

a second coupler extending from a second face of the second container, the second coupler includes a tongue that is offset [illegible] and

in a second direction opposite the first direction, the

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tongue of the second container is engageable with the rib of the first container; and

a latch coupled to the second container, the latch positionable in a locked position in which the latch prevents disengagement of the first container and the second container when the tongue and rib are engaged.

2. The container assembly of claim 1, wherein the first and second couplers on the first and second containers, respectively, engage when the first and second containers are slid along a sliding path defined by the rib and the tongue.

3. The container assembly of claim 1, wherein when the tongue and rib are engaged:

a first side wall of the first coupler and a second side wall of the second coupler interface to restrict displacement between the first container and the second container in a third direction perpendicular to the first direction and parallel to the first face of the first container.

4. The container assembly of claim 1,

the first container further comprising:

a third coupler extending from a second face of the first container, the third coupler including a tongue that is offset from the second face of the first container and extending in the second direction, the tongue of the first container configured to engage a rib of a third container, the first and third containers entering an engaged position by the third container sliding with respect to the first container; and

a latch coupled to the first container, the latch positionable in a locked position in which the latch prevents disengagement of the first container and the third container when the tongue of the first container and the rib of the third container are engaged.

5. The first container of claim 1, wherein the first coupler extends from a bottom face of the first container, and the second coupler extends from a top face of the second container.

6. The first container of claim 1, wherein the first face comprises a plurality of depressed surfaces, one of which the rib extends above, and wherein the plurality of depressed surfaces of the first face comprise at least 50% of the area of the first face.

7. A first container configured to be removably coupled to a second container, the first container comprising:

a top face;

a bottom face; and

a first coupler extending from a first face of the first container that is one of the top face and the bottom face, the first coupler comprises a tongue that is offset from the first face and extends in a first direction;

a second coupler extending from a second face of the first container that is the other of the top face and the bottom face, the second face comprising a plurality of depressed surfaces, the second coupler comprises a back wall, two sidewalls, and a rib, the back wall and the two sidewalls project from one of the plurality of depressed surfaces of the second face, the rib offset from the second face and extends above the one of the plurality of depressed surfaces in a second direction opposing the first direction, the rib engageable with a second tongue coupled to a second container, the first container enters an engaged position with the second container by the first and second containers sliding with respect to each other, wherein the plurality of depressed surfaces of the second face cover at least 50% of the second face;

a latch recess; and

a latch, the latch positionable in a locked position in which the latch interlocks with a second latch recess in the second container restricting displacement between the first container and the second container.

8. The first container of claim 7, wherein the rib is engaged between the second tongue of the second container and a first face of the second container when the first container is removably coupled to the second container.

9. The first container of claim 7, the first coupler of the first container engageable with a second rib of a third container.

10. The first container of claim 9, the latch recess of the first container engageable with a second latch of the third container.

11. The first container of claim 7, wherein the first face of the first container is the bottom face of the first container, and the second face of the first container is the top face of the first container.

12. A container assembly comprising:

a first container comprising:

a first coupler extending from a first face of the first container, the first coupler comprises two sidewalls, a back wall, and a rib, the back wall extends between the two sidewalls, the first face comprises a plurality of depressed surfaces, the back wall and the two sidewalls project from one of the plurality of depressed surfaces, the rib extends from the back wall in a first direction above the one of the plurality of depressed surfaces, the plurality of depressed surfaces of the first face cover at least 50% of the first face; and

a latch recess; and

a second container comprising:

a second coupler extending from a second face of the second container, the second coupler includes a tongue that is offset from the second face and extends in a second direction opposite the first direction, the tongue of the second container is engageable with the rib of the first container; and

a latch coupled to the second container, the latch positionable in a locked position in which the latch prevents disengagement of the first container and the second container when the tongue and rib are engaged.

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Electronic Patent Application Fee Transmittal	
Application Number:	17064371
Filing Date:	06-Oct-2020
Title of Invention:	Utility Assembly and Coupling Mechanism
First Named Inventor/Applicant Name:	Yaron Brunner
Filer:	Derek Howard Campbell/Andrea Dietzel
Attorney Docket Number:	066749-2792
Filed as Large Entity	
Filing Fees for Utility under 35 USC 111(a)	

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
		Total in USD ($)		**260**

Electronic Acknowledgement Receipt	
EFS ID:	41583134
Application Number:	17064371
International Application Number:	
Confirmation Number:	4794
Title of Invention:	Utility Assembly and Coupling Mechanism
First Named Inventor/Applicant Name:	Yaron Brunner
Customer Number:	142078
Filer:	Derek Howard Campbell/Andrea Dietzel
Filer Authorized By:	Derek Howard Campbell
Attorney Docket Number:	066749-2792
Receipt Date:	07-JAN-2021
Filing Date:	06-OCT-2020
Time Stamp:	16:15:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$260
RAM confirmation Number	E202117G16056934
Deposit Account	180882
Authorized User	Andrea Dietzel
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	066749-2792_IDS_Transmittal.pdf	83309 a1c1613ff76c41680f07ddc484f1cfe78408eb25	no	3
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	066749-2792_SB08.pdf	113549 ea016f1d47334c55c0ab884ca6db1d23b5fc4259	no	3
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Non Patent Literature	IPR_Petition.pdf	13540134 32953caa9145135ff689ecf81f2450b94b6ff69d	no	198
Warnings:					
Information:					
4	Non Patent Literature	Exhibit_1001.pdf	10112880 9c7d2b82523c7800aeed1d125ceb8a39fd2fe523	no	64
Warnings:					
Information:					
5	Non Patent Literature	Exhibit_1002.pdf	6352951 ac33a96acb5ae38b6324ce82f10eecf9c5de7e08	no	75
Warnings:					
Information:					
6	Non Patent Literature	Exhibit_1003.pdf	1417733 b35daba984d6581b91ca86ec6f6a4a7d9c8758ee	no	13
Warnings:					

Information:					
7	Non Patent Literature	Exhibit_1004.pdf	1572415 2ddfc238216a958a624c30a610a6f6451418 47bc	no	18
Warnings:					
Information:					
8	Non Patent Literature	Exhibit_1005.pdf	591768 dc7181b9c5d92dd9d4fe5f4b0a94a00246d 7c377	no	9
Warnings:					
Information:					
9	Non Patent Literature	Exhibit_1006.pdf	24299284 382a6871d3d49ba2e610bd711956806f5d6 f0b44	no	176
Warnings:					
Information:					
10	Non Patent Literature	Exhibit_1007.pdf	2995943 08bc3715ea7c6f0dcc23fe051d31a778465d 5909	no	22
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Information:					
11	Non Patent Literature	Exhibit_1008.pdf	376920 75c2732f079b104ff730501adcf7fac01aae9 68d	no	6
Warnings:					
Information:					
12	Non Patent Literature	Exhibit_1009.pdf	5678033 86431f35a532305f558339022aa91f384c8e 5d38	no	24
Warnings:					
Information:					
13	Non Patent Literature	Exhibit_1010.pdf	2791427 8f636533f6646d2db3b71a6652b47e4a3cc d412f	no	19
Warnings:					
Information:					

14	Non Patent Literature	Exhibit_1011.pdf	5246461 7f9acbe61d72db5c3c973568e67e46ec9ffb eaf6	no	26
Warnings:					
Information:					
15	Non Patent Literature	Exhibit_1012.pdf	509327 5a57e8c759e38ecfffa1b7f74a2e93f74a0b7 cb8	no	3
Warnings:					
Information:					
16	Non Patent Literature	Exhibit_1013.pdf	22273724 bd0d1b1cffa3f31095bb08d3fc63d1d80d4f 4de5	no	168
Warnings:					
Information:					
17	Non Patent Literature	Exhibit_1014_Part_A.pdf	16168233 04798cd861effb87d61170904641d1cb4da 110e9	no	166
Warnings:					
Information:					
18	Non Patent Literature	Exhibit_1014_Part_B.pdf	16281023 57b37064777d6edd16f379034da702e177e 2abb2	no	154
Warnings:					
Information:					
19	Non Patent Literature	Exhibit_1014_Part_C.pdf	18099348 0a2a23c1c727fbe1ec76ada98920550e62b b2557	no	161
Warnings:					
Information:					
20	Non Patent Literature	Exhibit_1015.pdf	546604 0511ce8bf0bd7f06be6d8bc03ca61976d0b 161a1	no	6
Warnings:					
Information:					

21	Non Patent Literature	Exhibit_1016.pdf	20594463 711162fca74e3c07e00adaa4c3689cd62f68ccfd	no	242
Warnings:					
Information:					
22	Non Patent Literature	Exhibit_1017.pdf	633720 4d2f37a2318f2e8b7af4f7b59c9129c892493d5b	no	6
Warnings:					
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23	Non Patent Literature	Exhibit_1018.pdf	20986396 b95e03d837a2e45d96b220447534ad3d9afe8984	no	250
Warnings:					
Information:					
24	Non Patent Literature	Exhibit_1019.pdf	5995377 767956a190b23050480502bede0f61021453c233	no	44
Warnings:					
Information:					
25	Non Patent Literature	Exhibit_1020.pdf	597816 e3f6af79e65764abd22a897614648d5aa3294cfc	no	5
Warnings:					
Information:					
26	Non Patent Literature	Exhibit_1021.pdf	57187 a1a152078572e06d8bfd7cbd73647492b5e1a043	no	1
Warnings:					
Information:					
27	Non Patent Literature	Exhibit_1022.pdf	93554 2043198bc1001789c82367b5b2ebf627c2930864	no	1
Warnings:					
Information:					

28	Non Patent Literature	Exhibit_1023.pdf	2800070 41481021f4f45d2fbc941ceb6a822a6cae6f2d0d	no	24
Warnings:					
Information:					
29	Non Patent Literature	Exhibit_1024.pdf	3131565 7d42cc7b33d8b1567a1800c6ad4073266f0c6ad4	no	28
Warnings:					
Information:					
30	Fee Worksheet (SB06)	fee-info.pdf	30695 7c0e1c434387cd642f42d6da6c1effeb55fcd1d0	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	203971909		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Milwaukee Electric Tool Corporation
Title:	Utility Assembly and Coupling Mechanism
Appl. No.:	17/064,371
Filing Date:	October 6, 2020
Examiner:	WEINERTH, GIDEON R
Art Unit:	3736
Confirmation Number:	4794

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Submitted herewith on Form PTO/SB/08 is a listing of the documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR § 1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR § 1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

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Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
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TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of any of a final action under 37 CFR § 1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

FEES

The IDS Fee of $260.00 under 37 CFR 1.17(p) is being paid via Deposit Account No. 18-0882 via EFS-web.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 18-0882. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 18-0882.

Although Applicant believes that no fee is required for this Request, the Commissioner is hereby authorized to charge any additional fees which may be required for this Request to Deposit Account No. 18-0882.

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Respectfully submitted,

Date January 7, 2021

By /Derek H. Campbell/

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Attorney for Applicant
Registration No. 70,608

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IPR2024-01400

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/064,371	10/06/2020	Yaron Brunner	066749-2792	4794

142078 7590 12/01/2020

Reinhart (Milwaukee Tool)
ATTN: TRAVIS MCDONNELL, PARALEGAL
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

EXAMINER	
WEINERTH, GIDEON R	

ART UNIT	PAPER NUMBER
3736	

NOTIFICATION DATE	DELIVERY MODE
12/01/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPAdmin@reinhartlaw.com

Office Action Summary	Application No. 17/064,371	Applicant(s) Brunner et al.	
	Examiner GIDEON R WEINERTH	Art Unit 3736	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) 1-8 and 15-20 is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 9-14 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 10/6/2020 is/are: a)☐ accepted or b)☑ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date 10/6/2020.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

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DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Election/Restrictions

2. This application contains claims directed to the following patentably distinct species.

a. A utility module assembly comprising two modules with couplers (Claims 1-8).

b. A coupling platform with female couplers (Claims 9-14).

c. A coupling platform with male couplers (Claims 15-17).

d. A male coupler with a locking tongue (Claims 18-20)

3. The species are independent or distinct because each is directed to a substantially different embodiment, implementation, or form of male or female couplers. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, or a single grouping of patentably indistinct species, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

There is a search and/or examination burden for the patentably distinct species as set forth above because at least the following reason(s) apply: There is significant breadth in the type of coupler claimed, the platform, and the coupler structure.

Furthermore, there may be significant issues in double patenting or duplication with the prior applications 15/826201, 15/826232, 16216724, 16/752441, 16/893591.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species or grouping of patentably indistinct species**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species or grouping of patentably indistinct species.

Should applicant traverse on the ground that the species, or groupings of patentably indistinct species from which election is required, are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing them to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103 or pre-AIA 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

4. During a telephone conversation with Mr. Derek Campbell on November 9, 2020, a provisional election was made without traverse to prosecute the invention of Species **b**, **claims 9-14**. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-8 and 15-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be corrected in compliance with 37 CFR 1.48(a) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. A request to correct inventorship under 37 CFR 1.48(a) must be accompanied by an application data sheet in accordance with 37 CFR 1.76 that identifies each inventor by his or her legal name and by the processing fee required under 37 CFR 1.17(i).

Drawings

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bolt eyes, or apertures recited in Claims 10 and 11 which secures the coupling platform ***to the*** stackable utility module must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

> (a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 10 and 11 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

6. Regarding Claim 10, the claim recites a plurality of "bolt eyes". This term is not standard in the art.

7. As shown below in Diagram 1, the Specification Paragraph 00237 identifies element 298 as "bolt eyes". These bolt eyes are discussed to secure the rigid coupling platform (300) to any desired surface. Please see Diagram 1 which reproduces Applicant's Figure 18A.

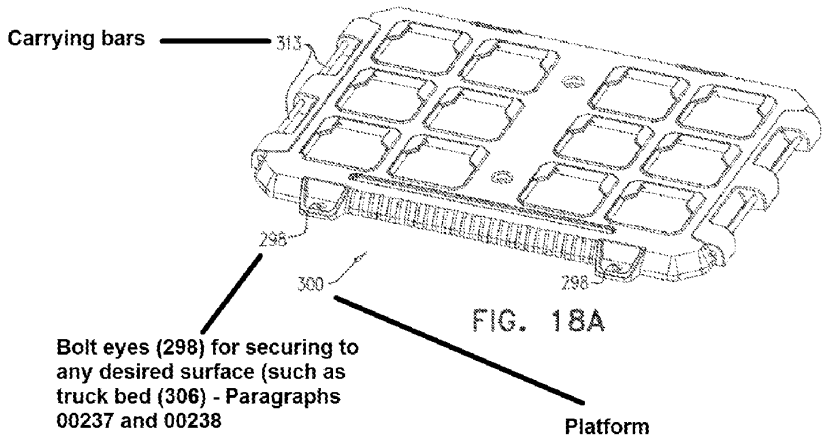


Diagram 1 - Annotated Figure 18A as discussed in Paragraphs 00237-00238

8. However, it is not understood what distinguishes the 'bolt eyes' from other typical terms in the art. Known in the art are "eye bolts" which are simply a bolt with a round aperture or eye. Please see Diagram 2 below.

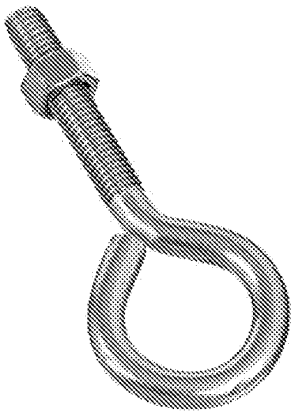


Diagram 2 - Eye Bolt

9. What is shown in Figure 18A is typically referred to as the following: "mounting aperture", "mounting foot", "mounting bracket", "mounting lug", "mounting plate". However, due to Applicant's non-standard phrasing, the function and application of the 'bolt eyes' is not enabled.

10. In addition, it is unclear if the 'bolt eyes' of Claim 10 are distinct from 'plurality of apertures' recited in Claim 11. Therefore, how such 'bolt eyes' are constructed and function is not enabled.

11. Additionally, there is NO explanation how the 'bolt eyes' or 'plurality of apertures' are configured to secure the coupling platform (300) to the **stackable utility modules** such as containers (22, 24, 26, and 28). The Specification Paragraphs 00237-238 quite

clearly identifies the 'bolt eyes' being used to couple the platform to a truck bed or wall. Nowhere is the coupling platform disclosed to attach to a stackable module using the 'bolt eyes'. The Specification makes clear that the platform attaches to the utility module via ***couplers***, not any 'bolt eyes' or apertures.

9. The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 10 and 11 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor (or for applications subject to pre-AIA 35 U.S.C. 112, the applicant), regards as the invention.

11. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

12. The term "bolt eyes" in claim 10 is used by the claim to mean "an aperture configured to accept a fastener" while the accepted meaning is "the eye of a bolt" The term is indefinite because the specification does not clearly redefine the term.

13. For the purposes of Examination, it will be assumed that the 'bolt eye' refers to any aperture which may accept a securing fastener.

14. Claims 10 and 11 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: any possible means by which the 'bolt eyes' or plurality of apertures are configured to secure the coupling platform to the stackable utility module.

15. As discussed above, there is no explanation as to how the 'bolt eyes' secure the platform (300) to the stackable utility module. The Specification makes clear that the platform (300) attaches to the module by male and female couplers exclusively.

16. For the purposes of examination, it will be assumed that the 'bolt eyes' or plurality of apertures attach the platform to a stationary surface as described in the Specification.

Claim Rejections - 35 USC § 102

17. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.

19. Claims 9, 12 and 13 are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Deutsch (US 5628443).

20. Regarding Claim 9, Deutsch discloses a coupling platform (12) for a stackable utility module (30) configured to engage male couplers (24, 26, 42, and 44) on an adjacent utility module. Deutsch discloses the coupling platform comprises one or more female couplers (20 and 22) each comprising a pair of locking ribs (D and D'), two sidewalls (C and C') and a depressed locking location relative to the ribs between slot forming members A and A' (Figure 3).

21. Deutsch further discloses the pair of locking ribs extending above a surface of the depressed locking location and substantially parallel to a sliding path of the T-shaped bracket 26. The male couplers of the adjacent utility module are configured to be engaged between the pair of locking ribs and the surface of the depressed locking location of the one or more female couplers.

22. Regarding Claim 12, Deutsch discloses the female couplers further includes a back wall (stop Z) that extends between the sidewalls. A first rib of the pair of locking ribs extends from the back wall and a first sidewall of the two sidewalls, and a second rib of the pair of locking ribs extends from the back wall and a second sidewall of the two sidewalls.

23. Regarding Claim 13, Deutsch discloses the first rib extends a first distance from the first sidewall and the first rib extends a second distance from the back wall that is more than twice as far as the first distance.

24. Claims 9-11 are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Ruggerone (US 3743372).

25. Regarding Claim 9, Ruggerone discloses a coupling platform (170) for a stackable utility module (71) configured to engage male couplers (90) on an adjacent utility module (72-76). Ruggerone discloses the coupling platform comprises one or more female couplers (80) each comprising a pair of locking ribs (the top edge of the dovetail), two sidewalls (the vertical extent of the dovetail) and a depressed locking location (the valley of the dovetail). Please see Diagram 3.

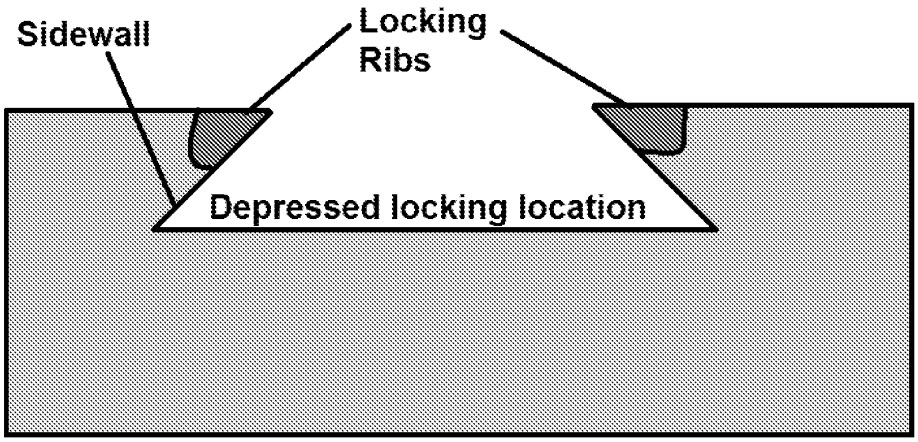


Diagram 3 - language of claim 9 as applied in a dovetail connection

26. Ruggerone further discloses the pair of locking ribs extending above a surface of the depressed locking location and substantially parallel to a sliding path of the male member. The male couplers of the adjacent utility module are configured to be engaged between the pair of locking ribs and the surface of the depressed locking location of the one or more female couplers.

27. Regarding Claims 10 and 11, Ruggerone discloses a plurality of apertures (172) to attach the platform to a stationary surface (Col. 4 Lines 21-33).

28. Regarding Claim 14, Ruggerone discloses a panel comprising a top face from which the one or more female couplers extend, wherein the depressed locking locations of the one or more female couplers comprise at least 50% of an area of the top face as shown in Figure 4 and discussed in Col. 2 Lines 58-64.

Claim Rejections - 35 USC § 103

29. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

30. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

31. The factual inquiries for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

32. Claims 10 and 11 are rejected under 35 U.S.C. 103 as being unpatentable over Deutsch (US 5628443) as applied to claim 9 above, and further in view of Hudson (US 4805859).

33. Regarding Claims 10 and 11, Deutsch discloses a platform with female couplers as discussed above. Deutsch does not disclose a plurality of apertures configured to accept fasteners for connection to a stationary surface.

34. Hudson discloses a similar platform (2) with slide-mating connection rails (14) configured to attach to a container (4) wherein the frame (2) includes a plurality of apertures (12). Deutsch and Hudson are analogous inventions in the art of container and platform attachment means.

35. It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to modify the platform of Deutsch with the apertures disclosed in Hudson in order to attach the platform to a support or the frame of a vessel or vehicle (Col. 4 Lines 33-36).

Conclusion

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIDEON R. WEINERTH whose telephone number is (571)270-5121. The examiner can normally be reached on Monday-Friday 10AM-6PM EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an

interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Pickett can be reached on (571) 272-4560. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see https://ppair-my.uspto.gov/pair/PrivatePair. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GIDEON R WEINERTH/
Examiner, Art Unit 3736

Notice of References Cited	Application/Control No. 17/064,371	Applicant(s)/Patent Under Reexamination Brunner et al.	
	Examiner GIDEON R WEINERTH	Art Unit 3736	Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-3514170-A	05-1970	SHEWCHUK DONALD	A47B87/02	312/107
*	B	US-3743372-A	07-1973	Ruggerone; Guiseffe	A47B87/02	312/108
*	C	US-4805859-A	02-1989	Hudson; Don	A01K97/06	224/406
*	D	US-5282554-A	02-1994	Thomas; Jan B.	B62J9/21	224/421
*	E	US-5628443-A	05-1997	Deutsch; William J.	A45C7/0086	150/113
*	F	US-5653366-A	08-1997	Liserre; Tony	B60R7/02	220/481
*	G	US-5775046-A	07-1998	Fanger; David J.	A47B81/06	108/157.16
*	H	US-5890613-A	04-1999	Williams; Warren Bret	A45C7/0045	220/23.4
*	I	US-5957421-A	09-1999	Barbour; Lee	A45F5/02	224/197
*	J	US-20050242144-A1	11-2005	Panosian, Michael	A45F5/021	224/665
*	K	US-20080296443-A1	12-2008	Lunitz; Barbara	F16L3/24	248/65
*	L	US-20090127146-A1	05-2009	Krebs; Kolja	B25H3/04	206/373
*	M	US-20120074158-A1	03-2012	LAFLEUR; ANDRE	B25H3/02	220/810

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 600
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Notice of References Cited	Application/Control No. 17/064,371	Applicant(s)/Patent Under Reexamination Brunner et al.	
	Examiner GIDEON R WEINERTH	Art Unit 3736	Page 2 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-8448829-B2	05-2013	Watanabe; Takato	H05K5/0204	224/547
*	B	US-20190168376-A1	06-2019	BROCKET; Stephen	B25H3/02	1/1
*	C	US-10758065-B2	09-2020	Penalver, Jr.; John	A47B96/1466	1/1
	D					
	E					
	F					
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	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

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	U	
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Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/064,371	Brunner et al.
	Examiner	Art Unit
	GIDEON R WEINERTH	3736

CPC - Searched*		
Symbol	**Date**	**Examiner**
A45C5/14	11/25/2020	GW
A45C7/005,0045	11/25/2020	GW
A45C13/02	11/25/2020	GW
A45F3/10	11/25/2020	GW
B25H1/$,04,14,	11/25/2020	GW
B25H3/$,02,021,023,	11/25/2020	GW
B25H5/$	11/25/2020	GW
B65H2701/533	11/25/2020	GW
B65D21/0223,0209,0228	11/25/2020	GW
B65D2255/00	11/25/2020	GW

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**
224	583,645,629,665	11/25/2020	GW
150	113	11/25/2020	GW
190	110	11/25/2020	GW
220	4.27	11/25/2020	GW

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

/GIDEON R WEINERTH/ Examiner, Art Unit 3736	

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 602
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/064,371	Brunner et al.
	Examiner	Art Unit
	GIDEON R WEINERTH	3736

Search Notes		
Search Notes	Date	Examiner

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/GIDEON R WEINERTH/ Examiner, Art Unit 3736	

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 603
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/064,371	Brunner et al.
	Examiner	**Art Unit**
	GIDEON R WEINERTH	3736

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	11/26/2020								
	1	N								
	2	N								
	3	N								
	4	N								
	5	N								
	6	N								
	7	N								
	8	N								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	N								
	16	N								
	17	N								
	18	N								
	19	N								
	20	N								

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Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

PTO/SB/08 (09-06)
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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: November 12, 2020

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known	
Application Number	17/064,371
Filing Date	October 6, 2020
First Named Inventor	Yaron Brunner
Art Unit	3736
Examiner Name	Weinerth, Gideon R.
Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/G.R.W/	A1	3,225,865	12-28-1965	J. W. Downey	
	A2	4,971,201	11-20-1990	Sathre	
	A3	5,098,235	03-24-1992	Svetlik et al.	
	A4	6,305,498	10-23-2001	Itzkovitch	
	A5	9,506,489	11-29-2016	Ko	
	A6	9,725,209	08-08-2017	Ben-Gigi	
	A7	10,106,180	10-23-2018	Bar-Erez et al.	
	A8	10,583,962	03-10-2020	Brunner et al.	
	A9	2002/0125072	09-12-2002	Levy	
	A10	2003/0094393	05-22-2003	Sahm, III	
	A11	2012/0292213	11-22-2012	Brunner	
	A12	2015/0034515	02-05-2015	Monyak et al.	
	A13	2016/0221177	08-04-2016	Reinhart	
	A14	2018/0099405	04-12-2018	Reinhart	
	A15	2018/0186513	07-05-2018	Brunner	
	A16	2020/0243925	07-30-2020	Polakowski et al.	
	A17	2020/0299027	09-24-2020	Brunner et al.	
	A18	D232,798	09-17-1974	Roche et al.	
	A19	D319,016	08-13-1991	Kahl	
	A20	D325,324	04-14-1992	Kahl	
	A21	D326,815	06-09-1992	Meisner et al.	
	A22	D340,167	10-12-1993	Kahl	
	A23	D352,208	11-08-1994	Brookshire	
	A24	D361,511	08-22-1995	Dickinson et al.	
	A25	D415,393	10-19-1999	Kei	
	A26	D420,860	02-22-2000	Golichowski et al.	
	A27	D527,225	08-29-2006	Krieger et al.	
	A28	D536,580	02-13-2007	Krieger et al.	
/G.R.W/	A29	D649,350	11-29-2011	Shitrit	

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	11/24/2020

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: November 12, 2020

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Sheet 2 of 3

Complete if Known	
Application Number	17/064,371
Filing Date	October 6, 2020
First Named Inventor	Yaron Brunner
Art Unit	3736
Examiner Name	Weinerth, Gideon R.
Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A30	D738,105	09-08-2015	Shitrit	
/G.R.W/	A31	D753,396	04-12-2016	Brunner	
	A32	D777,426	01-31-2017	Dahl	
	A33	D784,089	04-18-2017	Furneaux et al.	
	A34	D803,631	11-28-20017	Min et al.	
	A35	D806,483	01-02-2018	Stanford et al.	
	A36	D831,352	10-23-2018	Brunner	
	A37	D836,995	01-01-2019	Carey et al.	
	A38	D839,681	02-05-2019	Evron et al.	
	A39	D845,080	04-09-2019	Jacobsen	
	A40	D845,081	04-08-2019	Jacobsen	
	A41	D857,387	08-27-2019	Shpitzer	
	A42	D873,085	01-21-2020	DeFrancia	
	A43	D880,252	04-07-2020	Jacobsen	
	A44	D880,951	04-14-2020	Jacobsen	
	A45	D883,752	05-12-2020	Carey et al.	
	A46	D887,788	06-23-2020	Meda et al.	
	A47	D888,422	06-30-2020	Yang	
	A48	D888,503	06-30-2020	Meda et al.	
	A49	D891,193	06-28-2020	Stanford et al.	
	A50	D891,195	07-28-2020	Zhou	
	A51	D891,875	08-04-2020	Olson	
	A52	D892,565	08-11-2020	Astle et al.	
/G.R.W/	A53	D895,375	09-08-2020	Hurley, Jr.	

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Application Document Serial Number-Kind Code[2] (*if known*)	Filing Date of Cited Document MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	11/24/2020

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	17/064,371
				Filing Date	October 6, 2020
Date Submitted: November 12, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	3736
(use as many sheets as necessary)				Examiner Name	Weinerth, Gideon R.
Sheet	3	of	3	Attorney Docket Number	066749-2792

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
/G.R.W/	A54	CN102608238	07-25-2012	Zhengzhou Tobacco Res Cntc		
/G.R.W/	A55	JPD1503434	07-28-2014	Name not in English		
/G.R.W/	A56	JPD1665028	08-03-2020	Keter Plastic LTD et al.		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	11/24/2020

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Bibliographic Data

Application No: 17/064,371

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /GIDEON R WEINERTH/ (Examiner's Signature) | (Initials)

Title: Utility Assembly and Coupling Mechanism

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/06/2020	220	3736	066749-2792
RULE			

APPLICANTS

Milwaukee Electric Tool Corporation, Brookfield, WI,

INVENTORS

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Christopher S. Hoppe, Cedarburg, WI, UNITED STATES

Steven W. Hyma, Milwaukee, WI, UNITED STATES

CONTINUING DATA

This application is a CON of 16752441 01/24/2020

16752441 is a CON of 16216724 12/11/2018 PAT 10583962

16216724 is a CON of 15826232 11/29/2017 PAT 10703534

15826232 is a CON of PCT/IL2017/050481 04/30/2017

PCT/IL2017/050481 has PRO of 62459076 02/15/2017

PCT/IL2017/050481 has PRO of 62330334 05/02/2016

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

10/15/2020

STATE OR COUNTRY

ISRAEL

ADDRESS

Reinhart (Milwaukee Tool)
ATTN: TRAVIS MCDONNELL, PARALEGAL
1000 NORTH WATER STREET
SUITE 2100

MILWAUKEE, WI 53202
UNITED STATES

FILING FEE RECEIVED

$6,640

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L14	317	(US-20190225371-$ or US-20180161975-$ or US-20190039781-$ or US-20190031222-$ or US-20190002004-$ or US-20180290288-$ or US-20180220758-$ or US-20190315515-$ or US-20190291922-$ or US-20170318927-$ or US-20160144500-$ or US-20160008972-$ or US-20140062281-$ or US-20180044059-$ or US-20150376917-$ or US-20120152944-$ or US-20110181008-$ or US-20110049824-$ or US-20090236255-$ or US-20040134818-$ or US-20060027475-$ or US-20060012139-$ or US-20120326406-$ or US-20160023349-$ or US-20150241107-$ or US-20140014669-$).did. or (US-20040195793-$ or US-20100219193-$ or US-20040134390-$ or US-20200353612-$ or US-20200238920-$ or US-20200223349-$ or US-20200165036-$ or US-20190381959-$ or US-20160059906-$ or US-20180326572-$ or US-20180312115-$ or US-20030230909-$ or US-20170320209-$ or US-20160256995-$ or US-20160176003-$ or US-20190168376-$ or US-20160194115-$ or US-20160130034-$ or US-20150021322-$ or US-20030094392-$ or US-20110247910-$ or US-20100147642-$ or US-20150274362-$ or US-20150069962-$ or US-20170266804-$ or US-20090145866-$ or US-20050247653-$).did. or (US-20070170129-$ or US-20140259566-$ or US-20080296443-$ or US-20170127867-$ or US-20120111814-$ or US-20080169395-$ or US-20080053931-$ or US-20060022105-$ or US-20040020880-$ or US-20090179125-$ or US-20020017430-$ or US-20190053623-$ or US-20080237434-$ or US-20050279898-$ or US-20050072894-$ or US-20130145990-$ or US-20130193179-$ or US-20100307649-$ or US-20170138382-$ or US-20170121056-$ or US-20140161518-$ or US-20110139665-$ or US-20080104921-$ or US-20050139745-$ or US-20030205877-$ or US-20030184034-$ or US-20050242144-$).did. or (US-20020020729-$ or US-20200243925-$ or US-20170166352-$ or US-20090127146-$ or US-20180127007-$ or US-20180111635-$ or US-20130269844-$ or US-20190000199-$ or US-20120152800-$ or US-	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/26 21:57

		20110073516-$ or US-20180229889-$ or US-20170320621-$ or US-20100052276-$).did. or (US-10829269-$ or US-D898320-$ or US-D895966-$ or US-10583962-$ or US-D803560-$ or US-10703534-$ or US-D876833-$ or US-9393684-$ or US-8851282-$ or US-8789699-$ or US-7503569-$ or US-10793172-$ or US-RE47022-$ or US-9050992-$ or US-7367571-$ or US-6170839-$ or US-3711110-$ or US-10071303-$ or US-10843863-$ or US-9500400-$ or US-9522763-$ or US-10093335-$ or US-9409585-$ or US-6095533-$ or US-5599031-$ or US-3376046-$).did. or (US-10044203-$ or US-6193247-$ or US-D349994-$ or US-D333094-$ or US-9802741-$ or US-7537119-$ or US-8851287-$ or US-9994375-$ or US-5100076-$ or US-1498377-$ or US-3557990-$ or US-D374654-$ or US-D882952-$ or US-D880859-$ or US-10603783-$ or US-5609282-$ or US-5423445-$ or US-9725209-$ or US-9469024-$ or US-8979100-$ or US-8590704-$ or US-7690856-$ or US-10829268-$ or US-D873017-$ or US-8540326-$ or US-8322354-$ or US-8262993-$).did. or (US-3201035-$ or US-8490810-$ or US-8342329-$ or US-3081023-$ or US-3030163-$ or US-7322470-$ or US-6082539-$ or US-5934466-$ or US-9132543-$ or US-8590726-$ or US-8210387-$ or US-5375709-$ or US-10723502-$ or US-7350648-$ or US-10219400-$ or US-9888752-$ or US-D897103-$ or US-4643494-$ or US-5740927-$ or US-9975237-$ or US-8939335-$ or US-10137839-$ or US-5078279-$ or US-10709238-$ or US-8678206-$ or US-D817026-$ or US-5524772-$).did. or (US-5222701-$ or US-4391376-$ or US-10758065-$ or US-9303792-$ or US-9127807-$ or US-5906302-$ or US-5487518-$ or US-10206502-$ or US-9828073-$ or US-5996949-$ or US-D343975-$ or US-5586739-$ or US-8500078-$ or US-9267624-$ or US-8342474-$ or US-8074945-$ or US-7802680-$ or US-10729244-$ or US-7658265-$ or US-10450799-$ or US-10184292-$ or US-7540560-$ or US-6401862-$ or US-4653713-$ or US-10500714-$ or US-10365032-$ or US-8453796-$).did. or (US-9850706-$ or US-9714542-$ or US-7270307-$ or US-6837383-$ or US-9596930-$ or US-8517320-$ or US-10412929-$ or US-8893657-$ or US-4634193-$ or US-4231626-$ or US-3743372-$ or US-D714554-$ or US-7866769-$ or US-7100999-$ or US-10286542-$ or US-9526333-$ or US-				

		9510678-$ or US-9185975-$ or US-6050657-$ or US-6027188-$ or US-5775046-$ or US-10842264-$ or US-10676874-$ or US-10555605-$ or US-10501929-$ or US-9661944-$ or US-9108764-$).did. or (US-8662120-$ or US-8316781-$ or US-9615671-$ or US-7798338-$ or US-6945414-$ or US-10683963-$ or US-7392912-$ or US-10285515-$ or US-5316252-$ or US-10029275-$ or US-3278146-$ or US-1787734-$ or US-7261264-$ or US-6824028-$ or US-4932538-$ or US-4480755-$ or US-7565746-$ or US-7410289-$ or US-6558222-$ or US-6357194-$ or US-6241248-$ or US-6059631-$ or US-5993283-$ or US-4243279-$ or US-D285986-$ or US-3999818-$ or US-3758181-$).did. or (US-3514170-$ or US-3203744-$ or US-4003172-$ or US-5454634-$ or US-5046789-$ or US-8894160-$ or US-4863222-$ or US-3851936-$ or US-3552817-$ or US-3606506-$ or US-2800380-$ or US-1294446-$ or US-5240214-$ or US-8991639-$ or US-4805859-$ or US-5035389-$ or US-10017134-$ or US-8448829-$ or US-6036071-$ or US-5653366-$ or US-5332183-$ or US-5282554-$ or US-5105958-$ or US-4929973-$ or US-5957421-$ or US-7699197-$ or US-1794700-$).did. or (US-6637707-$ or US-4856658-$ or US-6698632-$ or US-5881891-$ or US-5628443-$ or US-10230077-$ or US-8967379-$ or US-7900757-$ or US-6726075-$ or US-4673070-$ or US-3974898-$ or US-5890613-$ or US-6899346-$ or US-9701443-$ or US-1531542-$ or US-6017075-$ or US-5899544-$ or US-5183307-$ or US-4752095-$ or US-5271515-$ or US-4782619-$ or US-9551367-$ or US-9375835-$ or US-5437502-$ or US-6253948-$ or US-8813960-$).did. or (US-2830699-$ or US-2563094-$ or US-3278146-$ or US-2997270-$ or US-D238401-$ or US-3514170-$ or US-3552817-$ or US-1294446-$ or US-3182856-$).did.				
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L16	39	(US-20200243925-$ or US-20200165036-$ or US-20190225371-$ or US-20190168376-$ or US-20180161975-$ or US-20170266804-$ or US-20170166352-$ or US-20170138382-$ or US-20170121056-$ or US-20160194115-$ or US-20160144500-$ or US-20160130034-$ or	US-PGPUB; USPAT	OR	OFF	2020/11/26 22:05

		US-20140161518-$ or US-20130269844-$ or US-20130193179-$ or US-20120152800-$ or US-20120074158-$ or US-20110139665-$ or US-20090127146-$ or US-20080296443-$ or US-20050242144-$ or US-20050139745-$).did. or (US-5628443-$ or US-4805859-$ or US-3743372-$ or US-10758065-$ or US-10017134-$ or US-9132543-$ or US-8448829-$ or US-8316781-$ or US-6726075-$ or US-6698632-$ or US-5957421-$ or US-5890613-$ or US-5775046-$ or US-5653366-$ or US-D343975-$ or US-5282554-$ or US-3514170-$).did.				
L35	430	(US-20200299027-$ or US-20200243925-$ or US-20180186513-$ or US-20180099405-$ or US-20160221177-$ or US-20150034515-$ or US-20120292213-$ or US-20030094393-$ or US-20020125072-$ or US-20170318927-$ or US-20170266804-$ or US-20170257958-$ or US-20170239808-$ or US-20170217464-$ or US-20170174392-$ or US-20170166352-$ or US-20170165828-$ or US-20170138382-$ or US-20170121056-$ or US-20160168880-$ or US-20160144500-$ or US-20160130034-$ or US-20160023349-$ or US-20150376917-$ or US-20150274362-$ or US-20140166516-$).did. or (US-20140161518-$ or US-20140076759-$ or US-20130223971-$ or US-20130154218-$ or US-20130127129-$ or US-20130121783-$ or US-20130068903-$ or US-20130031732-$ or US-20130031731-$ or US-20130024468-$ or US-20120326406-$ or US-20120207571-$ or US-20120180250-$ or US-20120160886-$ or US-20110220531-$ or US-20110181008-$ or US-20110155613-$ or US-20110139665-$ or US-20110073516-$ or US-20100219193-$ or US-20100147642-$ or US-20100139566-$ or US-20100052276-$ or US-20090236482-$ or US-20090178946-$ or US-20090145913-$ or US-20090145866-$).did. or (US-20090145790-$ or US-20090071990-$ or US-20090026901-$ or US-20080308369-$ or US-20080277221-$ or US-20080271280-$ or US-20080169739-$ or US-20080134607-$ or US-20080121547-$ or US-20080115312-$ or US-20080104921-$ or US-20070194543-$ or US-20070145700-$ or US-20070090616-$ or US-20070068757-$ or US-20060254946-$ or US-20060186624-$ or US-20060119060-$ or US-20060038367-$ or US-20060027475-$ or US-20060006770-$ or US-20050139745-$ or US-20050104308-$ or US-20050062244-$ or	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/26 22:05

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		or US-0155613-$ or US-0154218-$ or US-0153312-$ or US-0147781-$ or US-0147642-$ or US-0146589-$ or US-0145913-$).did. or (US-0145866-$ or US-0145790-$ or US-0145700-$ or US-0144500-$ or US-0139745-$ or US-0139665-$ or US-0139566-$ or US-0138382-$ or US-0134607-$ or US-0130034-$ or US-0127129-$ or US-0121783-$ or US-0121547-$ or US-0121056-$ or US-0119060-$ or US-0115715-$ or US-0115312-$ or US-0106244-$ or US-0104921-$ or US-0104308-$ or US-0103494-$ or US-0090616-$ or US-0076759-$ or US-0073516-$ or US-0071990-$ or US-0068903-$ or US-0068757-$).did. or (US-0062244-$ or US-0055534-$ or US-0052276-$ or US-0044059-$ or US-0039781-$ or US-0038367-$ or US-0031732-$ or US-0031731-$ or US-0031222-$ or US-0027475-$ or US-0026901-$ or US-0024468-$ or US-0023349-$ or US-0006770-$ or US-0002004-$ or US-0000440-$ or US-D871013-$ or US-D815831-$ or US-D814187-$ or US-9872562-$ or US-9750543-$ or US-9701443-$ or US-9643629-$ or US-9616562-$ or US-9566990-$ or US-9511491-$ or US-9132543-$).did. or (US-8985922-$ or US-8979100-$ or US-8875888-$ or US-8813960-$ or US-8714355-$ or US-8689396-$ or US-D701696-$ or US-8677661-$ or US-8567796-$ or US-8505729-$ or US-8459495-$ or US-8454033-$ or US-D661858-$ or US-8191910-$ or US-8177463-$ or US-8132819-$ or US-8028845-$ or US-7841144-$ or US-7780026-$ or US-7779764-$ or US-7658887-$ or US-7503569-$ or US-7367571-$ or US-7263742-$ or US-7212840-$ or US-7147243-$ or US-7066475-$).did. or (US-7044484-$ or US-6983946-$ or US-6948691-$ or US-6945546-$ or US-6641013-$ or US-6637707-$ or US-6619772-$ or US-6601930-$ or US-6547347-$ or US-6431580-$ or US-6371320-$ or US-6367631-$ or US-6347847-$ or US-6176559-$ or US-6109627-$ or US-6085925-$ or US-6050660-$ or US-5988473-$ or US-5951037-$ or US-5797617-$ or US-5628443-$ or US-5608603-$ or US-5595228-$ or US-5538213-$ or US-5429260-$ or US-5301829-$ or US-5240264-$).did. or (US-5105947-$ or US-5035445-$ or US-4168076-$ or US-3974898-$ or US-3506321-$ or US-3117692-$).did. or (US-D232798-$ or US-3225865-$ or US-0299027-$ or US-0292213-$ or US-0243925-$ or US-0221177-$ or US-0186513-$ or US-0125072-$ or US-				

		0099405-$ or US-0094393-$ or US-0034515-$ or US-2970358-$ or US-2430200-$ or US-2042387-$ or US-0376917-$ or US-0349013-$ or US-0326406-$ or US-0320243-$ or US-0318927-$ or US-0308369-$ or US-0290288-$ or US-0277221-$ or US-0274362-$ or US-0271616-$ or US-0271280-$ or US-0266804-$).did. or (US-0257958-$ or US-0254946-$ or US-0239808-$ or US-0236482-$ or US-0225371-$ or US-0223971-$ or US-0220758-$ or US-0220531-$ or US-0219193-$ or US-0217464-$ or US-0207571-$ or US-0206656-$ or US-0205877-$ or US-0195793-$ or US-0194543-$ or US-0186624-$ or US-0184034-$ or US-0181008-$ or US-0180250-$ or US-0178946-$ or US-0174392-$ or US-0171228-$ or US-0169739-$ or US-0168880-$ or US-0166516-$ or US-0166352-$ or US-0165828-$).did. or (US-0165036-$ or US-0161975-$ or US-0161518-$ or US-0160886-$ or US-0155613-$ or US-0154218-$ or US-0153312-$ or US-0147781-$ or US-0147642-$ or US-0146589-$ or US-0145913-$ or US-0145866-$ or US-0145790-$ or US-0145700-$ or US-0144500-$ or US-0139745-$ or US-0139665-$ or US-0139566-$ or US-0138382-$ or US-0134607-$ or US-0130034-$ or US-0127129-$ or US-0121783-$ or US-0121547-$ or US-0121056-$ or US-0119060-$ or US-0115715-$).did. or (US-0115312-$ or US-0106244-$ or US-0104921-$ or US-0104308-$ or US-0103494-$ or US-0090616-$ or US-0076759-$ or US-0073516-$ or US-0071990-$ or US-0068903-$ or US-0068757-$ or US-0062244-$ or US-0055534-$ or US-0052276-$ or US-0044059-$ or US-0039781-$ or US-0038367-$ or US-0031732-$ or US-0031731-$ or US-0031222-$ or US-0027475-$ or US-0026901-$ or US-0024468-$ or US-0023349-$ or US-0006770-$ or US-0002004-$ or US-0000440-$).did. or (US-3506321-$ or US-3117692-$).did.				
L36	24	L16 not L35	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/26 22:05
S1	1,013	((("MILWAUKEE") near3 ("ELECTRIC") near3 ("TOOL") near3 ("CORPORATION"))).AS,AANM.	USPAT	OR	OFF	2020/11/24 16:18
S2	73	((("Brunner") near3 ("Yaron"))).INV.	US-PGPUB;	OR	OFF	2020/11/24 16:18

			USPAT; USOCR			
S3	60	((("Squiers") near3 ("Grant") near3 ("T"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 16:18
S4	93	((("Hoppe") near3 ("Christopher") near3 ("S"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 16:18
S5	166	((("Hyma") near3 ("Steven") near3 ("W"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 16:18
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S41	78	("0879455" | "20040134390" | "20040178208" | "20060254946" | "20060254947" | "20080017650" | "20100219193" | "2695115" | "2849151" | "3103278" | "3117692" | "3383009" | "3391824" | "3407758" | "3419184" |	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 16:54

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S42	4	B65D71/0088,0092,0096.cpc. and (dovetail (dove adj tail))	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 16:55
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S44	3	("1498377").URPN.	USPAT	OR	OFF	2020/11/24 16:57
S45	0	("2830699").URPN.	USPAT	OR	OFF	2020/11/24 16:58
S46	1,656	(truck) and (tool adj box)	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 16:58
S47	10	("20030230909" | "20130021453" | "20140117062" | "3688954" | "4420238" | "4465187" | "5018779" | "6152513" | "6886876" | "D374654").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:03
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S49	118	B25H3/$.cpc. and (dovetail (dove adj tail))	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:06
S50	7	B25H5/$.cpc. and (dovetail (dove adj tail))	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:06

S51	13	("20080087128" | "20080244888" | "20050265798" | "20020057952" | "20020131836" | "20140305217" | "20030116331" | "20100031487" | "20160176003" | "6172374" | "20080083128" | "5584818" | "5379510").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:07
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S53	14	("2016/0194115").URPN.	USPAT	OR	OFF	2020/11/24 17:10
S54	48	("0263561" | "20020179473" | "20030094392" | "20040188322" | "20110155613" | "20120152944" | "20150353231" | "20160075010" | "20160194115" | "4619363" | "4643494" | "4863222" | "5570784" | "5617953" | "5803254" | "5887715" | "5890613" | "5934466" | "6082539" | "6271320" | "6349827" | "6543613" | "6868967" | "6889838" | "7219969" | "7237673" | "7322470" | "7690856" | "8322354" | "8459495" | "8505729" | "8561679" | "8590704" | "8602217" | "8714355" | "8875888" | "8979100" | "9469024" | "9725209" | "D528793" | "D563102" | "D563670" | "D563671" | "D645663" | "D648531" | "D781584" | "RE47022").PN. OR ("10603783").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:11
S55	21	("20080000899" | "20090255092" | "4714158" | "8636169" | "20130021787" | "20060157373" | "7559514" | "20150021322" | "20140311926" | "0532324" | "20020179462" | "20160130034" | "4505506" | "5415277" | "4364150" | "6059109" | "20100176022" | "5423445" | "5609282" | "5904388").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:12

S56	31	("1385484" | "2888970" | "3201035" | "4616752" | "6202847" | "6648390" | "6874634" | "7137522").PN. OR ("7690856").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:15
S57	7	("3201035").URPN.	USPAT	OR	OFF	2020/11/24 17:19
S58	24	(("0577452") or ("0895867") or ("1126977") or ("2199970") or ("2522483") or ("2563094") or ("2703200") or ("2715559") or ("2974808") or ("3030163") or ("3081023") or ("3107012")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:20
S59	42	("2807387" | "3182856" | "4724756" | "5083664" | "5375709" | "5445269").PN. OR ("5934466").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:24
S60	23	("3182856" | "4293070" | "4404615" | "4427114" | "4553190" | "4557382" | "4561554" | "4886163" | "5107989" | "5180615" | "5244087").PN. OR ("5375709").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:26
S61	26	("3224822" | "3401993" | "3552817" | "3851936" | "3907116" | "4178047" | "4243279" | "4317603" | "4328902" | "4420196" | "5271515" | "5375709" | "5775046" | "6050657").PN. OR ("7350648").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:26
S62	151	("1409838" | "20010040080" | "20020074332" | "20020130005" | "20020185350" | "20030034215" | "20030034636" | "20040000457" | "20040004332" | "20040026199" | "20040074725" | "20040163910" | "20040211634" | "20040238303" | "20050077133" | "20050077706" | "20050098402" | "20050103590" | "20050150733" | "20050258621" | "20050285359" | "20060010644" | "20060086583" | "20060102677" | "20060163305" | "20060175170" | "20060196743" | "20060207848" | "20080060953" | "20080136133" | "20080223679" | "20080236972" | "20080308369" | "20080308370" | "20090057082" | "20090139813" | "20090160147" | "20090218187" | "20100000805" | "20100025174" | "20100095480" | "20100108452" | "20100147642" | "20100263977" | "20100307879" | "20100308563" | "20110247910" | "20120160617" |	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:27

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S63	19	("2010/0147642").URPN.	USPAT	OR	OFF	2020/11/24 17:28
S64	172	("10434638" | "20020000440" | "20020171228" | "20030115715" | "20030146589" | "20030184034" | "20030205877" | "20040103494" | "20040195793" | "20040206656" | "20050062244" | "20050104308" | "20050139745" | "20060006770" | "20060027475" | "20060038367" | "20060119060" | "20060186624" | "20060254946" | "20070068757" | "20070090616" | "20070145700" | "20070194543" | "20080104921" | "20080115312" | "20080121547" | "20080134607" | "20080169739" | "20080271280" | "20080277221" | "20080308369" | "20090026901" |	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 17:29

		"20090071990" | "20090145790" | "20090145866" | "20090145913" | "20090178946" | "20100052276" | "20100139566" | "20100147642" | "20100219193" | "20110073516" | "20110139665" | "20110155613" | "20110181008" | "20110220531" | "20120160886" | "20120180250" | "20120207571" | "20120326406" | "20130024468" | "20130031731" | "20130031732" | "20130121783" | "20130127129" | "20130223971" | "20140161518" | "20140166516" | "20150376917" | "20160023349" | "20160130034" | "20160144500" | "20160168880" | "20170121056" | "20170138382" | "20170165828" | "20170166352" | "20170174392" | "20170217464" | "20170239808" | "20170257958" | "20170266804" | "20170318927" | "20180044059" | "20180161975" | "20180186513" | "20180220758" | "20180290288" | "20190002004" | "20190039781" | "20190106244" | "20190225371" | "2042387" | "2430200" | "2970358" | "3117692" | "3506321" | "3974898" | "4168076" | "5035445" | "5105947" | "5240264" | "5301829" | "5429260" | "5595228" | "5608603" | "5628443" | "5797617").PN. OR ("5951037" | "5988473" | "6050660" | "6085925" | "6109627" | "6176559" | "6347847" | "6367631" | "6371320" | "6431580" | "6547347" | "6601930" | "6619772" | "6637707" | "6641013" | "6945546" | "6948691" | "6983946" | "7044484" | "7066475" | "7147243" | "7263742" | "7367571" | "7503569" | "7658887" | "7780026" | "7841144" | "8028845" | "8132819" | "8177463" | "8191910" | "8454033" | "8459495" | "8505729" | "8567796" | "8677661" | "8689396" | "8714355" | "8813960" | "8875888" | "8979100" | "8985922" | "9132543" | "9506489" | "9511491" | "9566990" | "9616562" | "9643629" | "9701443" | "9872562" | "D525789" | "D630851" | "D653832" | "D661858" | "D663952" | "D664354" | "D674605" | "D701696" | "D738106" | "D753394" | "D753395" | "D765974" | "D770179" | "D790221" | "D814187" | "D816334" |			

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S65	9	("2018/0220758").URPN.	USPAT	OR	OFF	2020/11/24 17:30
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S67	51	("1575270" | "20020170933" | "20030141329" | "20050247653" | "20060237509" | "20080142462" | "20080179370" | "20080185353" | "20090145789" | "20090145866" | "20140075650" | "20170266804" | "2290468" | "2546720" | "2763377" | "2964196" | "3145031" | "3536286" | "4264013" | "4923202" | "4932576" | "5395023" | "5511705" | "5722576" | "5881891" | "5971242" | "6213365" | "6666465" | "6698632" | "6874624" | "7090075" | "7322482" | "7686196" | "7699197" | "7726495" | "7762440" | "8267260" | "8510868" | "9038869" | "D163637" | "D165553" | "D328681").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:20
S68	18	("2715966" | "20050247653" | "4771897" | "5429252" | "5740927" | "5845792" | "6152312" | "6267338" | "6435357" | "6564949" | "6698603" | "6871749" | "7014052" | "7028854" | "7117998" | "6581788" | "5915573").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:20
S69	43	("2754974" | "4693381" | "4771897" | "4869378" | "5224609" | "5472167" | "5524772").PN. OR ("5740927").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:22
S70	17	("20130134193" | "20130269509" | "2783896" | "4776471" | "5078279" | "5438787" | "5740927" | "5762245" | "5791499" | "6546598" | "6572168" | "6626477" | "7047771").PN. OR ("8939335").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:23
S71	71	("2708088" | "3701436" | "3876079" | "4084735" | "4108313" | "4271997" | "4450989" | "4776471").PN. OR ("5078279").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:24

S72	58	("0554252" | "1202588" | "1951255" | "20050133473" | "20060113341" | "20060288625" | "20070170129" | "20110168649" | "20120228243" | "2783896" | "2958422" | "2987285" | "4113107" | "4132315" | "4141452" | "4174042" | "4461385" | "4776471" | "4936531" | "4982522" | "4986427" | "5062184" | "5078279" | "5222701" | "5265950" | "5524772" | "5806691" | "5979846" | "6129252" | "6427497" | "6929233" | "6935065" | "6986446" | "7267353" | "7467719" | "7478892" | "7770740" | "8444034" | "D611558").PN. OR ("8678206").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:26
S73	32	("0670870" | "2724881" | "3069538" | "3197830" | "3421187" | "3463436" | "3746294" | "3888440" | "3894707" | "4391376" | "4638966" | "4768741" | "5062184").PN. OR ("5222701").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:29
S74	32	("2653686" | "3154281" | "3253084" | "3632071" | "3807675" | "3809799" | "3894706" | "3913876" | "3917202" | "3985275" | "4023758").PN. OR ("4391376").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:31
S75	18	("20140259566" | "2384158" | "3226069" | "3633857" | "3894707" | "4391376" | "4524937" | "5098054" | "5105509" | "5487518" | "5906302" | "7261256" | "8413933" | "9127807" | "9303792" | "D343975").PN. OR ("10758065").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:31
S76	39	("2937766" | "3319983" | "4955573" | "5020760" | "5190260").PN. OR ("5487518").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:33
S77	26	("20020125389" | "20040051015" | "20040238702" | "2908471" | "3695569" | "3702591" | "3774788" | "4071216" | "4306702" | "5078279" | "5351842" | "D373719").PN. OR ("8500078").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:41
S78	24	("2651710" | "3403641" | "3526934" | "3756637" | "4199070" | "4460141" | "4819309" | "4953146" | "5058843" | "5794897" | "5941483" | "6079673" | "6357194" | "6783101" | "7007900" | "7484698" | "8342474" | "8500078").PN. OR ("9267624").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:42
S79	53	("20040056156" | "20080296443" | "20090218451" | "20090277524" | "4618114" | "4919372" | "5123547" | "5794897" |	US-PGPUB;	OR	OFF	2020/11/24 22:43

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S80	31	("20050211463" | "3125196" | "3523667" | "3526934" | "3765629" | "3856246" | "4093076" | "4336673" | "4601447" | "4618114" | "4856658" | "5104072" | "5642612" | "5791607" | "5823484" | "5829243" | "5855279" | "6375129" | "6378811" | "6513781" | "6889944" | "7467767" | "7497718" | "7686259" | "7802680" | "7828251" | "8074945" | "8079552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:44
S81	22	("4410095" | "4770297" | "5351417" | "5484057" | "5595294" | "6047827" | "7395984").PN. OR ("7802680").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:45
S82	126	("0136905" | "0177936" | "0327939" | "0342194" | "0543735" | "0570465" | "0632234" | "0687431" | "0724427" | "0754503" | "0764774" | "0888032" | "0914469" | "1653374" | "1848937" | "1936813" | "20040020880" | "20040108734" | "20060022105" | "20070251904" | "20080053931" | "20080169395" | "20080179898" | "20100264102" | "20110042333" | "20120012726" | "20120111814" | "20120152871" | "20120181244" | "20150250333" | "20170127867" | "2141009" | "2273641" | "2309990" | "2344339" | "2369336" | "2447128" | "2485201" | "2754974" | "2842264" | "2919881" | "3285426" | "3289994" | "3343684" | "3612426" | "4308961" | "4609233" | "4658967" | "4750698" | "4773172" | "4775127" | "4882868" | "4905846" | "4936469" | "5060897" | "5080238" | "5104083" | "5154304" | "5312081" | "5348167" | "5398820" | "5433413" | "5441161" | "5480206" | "5584462" | "5584521" | "5727698" | "5853092" | "5897002" | "5906403" | "6257409" | "6283311" | "6289618" | "6299000" | "6349909" | "6427500" | "6557807" | "6604637" | "6607234" | "6637707" | "6789771" | "6886791" | "6932223" | "6935518" | "7040125" | "7228977" | "7427053" | "7658265" | "7694933" | "7802680" | "8550265" | "9339130" | "D043289" |	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:46

		"D175455" | "D855408").PN. OR ("10729244").URPN.				
S83	20	("0488851" | "1045932" | "20020070136" | "20020104709" | "20050258002" | "5370263" | "5433413" | "5673885" | "5782314" | "5873433" | "5950972" | "7032711" | "7063187").PN. OR ("7658265").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:48
S84	8	("20070284191" | "20090127146" | "4653713" | "6138963" | "6401862" | "6997282" | "7540560" | "7658265").PN. OR ("10184292").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:49
S85	76	("1858656" | "2308180" | "2444096" | "2798652" | "3495683" | "3631572" | "3915189" | "4261435" | "4300740" | "4428458" | "4480810").PN. OR ("4653713").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:50
S86	51	("1794700" | "20020017430" | "20050258002" | "20070181367" | "20090078504" | "20090179125" | "3477679" | "3915189" | "4176580" | "4653713" | "4858869" | "5035389" | "5240214" | "5259480" | "5358070" | "5370263" | "5433416" | "5503245" | "5547080" | "5573081" | "5584357" | "5622278" | "5740883" | "5782314" | "5899420" | "5924615" | "6401862" | "6412601" | "6443260" | "6467577" | "6827215" | "6837383" | "7032711" | "7270307").PN. OR ("8453796").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:53
S87	42	("4211455" | "4303158" | "4437568" | "4703850" | "4911296" | "4928823" | "5370263" | "5547080" | "5725096" | "5727649" | "5749437" | "5901998" | "5913380" | "5924615" | "5951129" | "5971101" | "6095156").PN. OR ("6837383").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:55
S88	19	("2835503" | "3084463" | "4828120" | "6189248" | "6220461" | "6264220" | "6367752" | "6698701" | "6712324" | "6837383" | "7798336").PN. OR ("8517320").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:56
S89	147	("1855314" | "1869901" | "1879332" | "1900868" | "20030106498" | "20030192480" | "20040112258" | "20050072894" | "20050115508" | "20050246989" | "20050279898" | "20060011142" | "20060042549" | "20060196436" | "20070028854" | "20080023479" | "20080179265" | "20080190372" | "20080237434" | "20090001231" |	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 22:57

		"20100107984" | "20100162961" | "20110049065" | "20110114025" | "20120325158" | "20130334377" | "20140346293" | "20150122185" | "20190053623" | "2555396" | "2845896" | "3099355" | "3260559" | "3630385" | "3669035" | "3698594" | "3776193" | "4044723" | "4065195" | "4205629" | "4261294" | "4329003" | "4498654" | "4532891" | "4587930" | "4699089" | "4798170" | "4843977" | "4919498" | "4976223" | "4986332" | "5000124" | "5054431" | "5144912" | "5152247" | "5226625" | "5435266" | "5501176" | "5718493" | "5730081" | "5802647" | "5855184" | "5870969" | "6098941" | "6131521" | "6161486" | "6189489" | "6199510" | "6209487" | "6308641" | "6382578" | "6394001" | "6409137" | "6427626" | "6516948" | "6526911" | "6705249" | "6729685" | "6901880" | "6945194" | "7077372" | "7124709" | "7261264" | "7284500" | "7314023" | "7341019" | "7395765" | "7513219" | "7530329" | "7614363" | "7665417" | "7748538" | "7802327" | "7837165" | "7938083" | "7963231" | "8146534" | "8148651" | "8245992" | "8308115" | "8342129" | "8381661" | "8443736" | "8517320" | "8671598" | "8672172" | "8684195" | "8776725" | "8807082" | "8833305" | "8893657" | "9284776" | "D209754" | "D209755" | "D213377" | "D213378").PN. OR ("D216989" | "D229073" | "D357557" | "D358233" | "D375818" | "D421160" | "D424758" | "D424759" | "D491697" | "D506295" | "D622013" | "D657920" | "D662265" | "D676612" | "D695974").PN. OR ("10412929").URPN.				
S90	26	("1900868" | "20030116094" | "20040144330" | "20090015121" | "20130145990" | "2555396" | "2659345" | "2800380" | "2997022" | "3606506" | "3743372" | "4231626" | "4634193" | "5144912" | "5152247" | "5222990" | "5435266" | "7458338" | "8342129").PN. OR ("8893657").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:00
S91	83	("2842420" | "2998128" | "3032381" | "3294463" | "3501044" | "3552817").PN. OR ("3743372").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:03

S92	34	("3514170" | "3552817" | "3743372" | "3999818" | "5046789" | "5454634" | "5704699" | "5775046" | "6003924" | "6015050" | "6027188" | "6050657" | "6488346").PN. OR ("7100999").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:06
S93	102	("3468081" | "3668832" | "3836217" | "4003172" | "4095769" | "4243279" | "4413867" | "4423913" | "4577914" | "4768298" | "4867513" | "5046789" | "5267863" | "D334704" | "D337653").PN. OR ("5775046").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:09
S94	42	("1520518" | "1870978" | "20040198141" | "3241885" | "3415007" | "3669033" | "3966337" | "4039133" | "4163537" | "4212130" | "4216729" | "4223945" | "4270302" | "4915034" | "5226864" | "5715760" | "5775046" | "5813737" | "5899423" | "5988077" | "6220180" | "6283042" | "6341566" | "6382109" | "8191488" | "D370045").PN. OR ("8316781").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:14
S95	41	("20040226901" | "20070023464" | "2100421" | "2996192" | "3172540" | "3452959" | "3497079" | "3799357" | "4480755" | "4509648" | "4516681" | "4932538" | "5083668" | "5775046" | "5927517" | "5944203" | "6015124" | "6062399" | "6481584" | "6491172" | "6929131" | "6945414").PN. OR ("7798338").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:17
S96	159	("20010047971" | "20030189019" | "2029089" | "3192667" | "3204776" | "3310271" | "3469710" | "3698565" | "3733756" | "4223488" | "4229913" | "4323163" | "4420087" | "4438604" | "4450970" | "4572381" | "4579308" | "4589557" | "4591058" | "4593824" | "4598504" | "4602756" | "4607753" | "4615448" | "4629076" | "4638618" | "4674240" | "4677794" | "4805783" | "4805784" | "4809479" | "4811475" | "4825601" | "4826022" | "4891897" | "4932538" | "4944416" | "4961295" | "5138803" | "5142832" | "5185971" | "5228579" | "5241796" | "5337525" | "5360121" | "5375802" | "5412912" | "5429252" | "5477969" | "5484067" | "5547156" | "5582376" | "5655674" | "5671852" | "5697507" | "5740927" | "5791093" | "5819490" | "5857577" | "5899344" | "5941026" | "5944203" |	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:18

		"6050426" | "6068135" | "6116435" | "6119784" | "6119878" | "6123154" | "6134846" | "6164467" | "6199705" | "6209730" | "6276034" | "6299001" | "6311854" | "6325223" | "6349507" | "6363645" | "6591996").PN. OR ("6945414").URPN.				
S97	20	("20060243766" | "20070094955" | "20100307649" | "20130081233" | "20130193179" | "20140374564" | "2920767" | "3605637" | "4256424" | "4687094" | "4708311" | "5083668" | "5674033" | "6824028" | "6945414" | "7261264" | "7392912" | "8613564").PN. OR ("10683963").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:20
S98	39	("20050072746" | "3200960" | "4094415" | "4509648" | "4826022" | "5109993" | "5154304" | "5316252" | "5484067" | "5595309" | "5927517" | "6068135" | "6070747" | "6481584" | "6491172" | "6536613" | "6561474" | "6575314" | "6644483" | "6675978").PN. OR ("7392912").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:23
S99	54	("1787734" | "2997270" | "3229944" | "3278146" | "4204602" | "4909464" | "5056668" | "5069416" | "Re33596").PN. OR ("5316252").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/24 23:25
S100	9	("2997270").URPN.	USPAT	OR	OFF	2020/11/24 23:27
S101	61	("0511617" | "1890000" | "2492697" | "2557630" | "2807387" | "3203744" | "3283915" | "3514170" | "3743372" | "3758181" | "3918781" | "3999818" | "4026615" | "4056295" | "4120549").PN. OR ("4243279").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 00:00
S102	14	("3899229" | "4054344" | "4087145" | "4216857" | "4243279" | "D238401" | "D247794").PN. OR ("D285986").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 00:01
S103	58	("3552817").URPN.	USPAT	OR	OFF	2020/11/25 11:50
S104	83	("2842420" | "2998128" | "3032381" | "3294463" | "3501044" | "3552817").PN. OR ("3743372").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 18:49
S105	66	("2128854" | "3743372").PN. OR ("4863222").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 18:50

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S110	60	("4132380" | "4307864" | "4524938" | "4974798").PN. OR ("5035389").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 19:31
S111	19	("2696962" | "4929973" | "5035389" | "5040712" | "5129613" | "5282554" | "5332183" | "5356105" | "5653366" | "5730348" | "5730406" | "6036071" | "6315182" | "7225958" | "8020821").PN. OR ("8448829").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 19:34
S112	26	("3334953" | "4249684" | "4938398" | "4993771" | "5255832" | "5395019").PN. OR ("5653366").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 19:35
S113	42	("0613226" | "0637733" | "0767823" | "3613970" | "3955729" | "4056219" | "4260086" | "4315583" | "4366922" | "4415105" | "4440332" | "4542839" | "4638933" | "4730758" | "4981243" | "5024359" | "5105958").PN. OR ("5282554").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 19:37
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S119	301	150/113.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 20:24
S120	552	190/110.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 20:24
S121	14	("2009/0145866").URPN.	USPAT	OR	OFF	2020/11/25 22:27
S122	12	("20110139777" | "5301829" | "5427265" | "8602217").PN. OR ("9701443").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 22:30
S123	17	("4181349" | "4188058" | "4911493" | "5131709" | "5137322" | "5154478" | "5421634" | "5722711" | "D271009").PN. OR ("6017075").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:10
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		or US-0094393-$ or US-0034515-$).did. or (US-10434638-$ or US-2970358-$ or US-2430200-$ or US-2042387-$ or US-0376917-$ or US-0349013-$ or US-0326406-$ or US-0320243-$ or US-0318927-$ or US-0308369-$ or US-0290288-$ or US-0277221-$ or US-0274362-$ or US-0271616-$ or US-0271280-$ or US-0266804-$ or US-0257958-$ or US-0254946-$ or US-0239808-$ or US-0236482-$ or US-0225371-$ or US-0223971-$ or US-0220758-$ or US-0220531-$ or US-0219193-$ or US-0217464-$ or US-0207571-$).did. or (US-0206656-$ or US-0205877-$ or US-0195793-$ or US-0194543-$ or US-0186624-$ or US-0184034-$ or US-0181008-$ or US-0180250-$ or US-0178946-$ or US-0174392-$ or US-0171228-$ or US-0169739-$ or US-0168880-$ or US-0166516-$ or US-0166352-$ or US-0165828-$ or US-0165036-$ or US-0161975-$ or US-0161518-$ or US-0160886-$ or US-0155613-$ or US-0154218-$ or US-0153312-$ or US-0147781-$ or US-0147642-$ or US-0146589-$ or US-0145913-$).did. or (US-0145866-$ or US-0145790-$ or US-0145700-$ or US-0144500-$ or US-0139745-$ or US-0139665-$ or US-0139566-$ or US-0138382-$ or US-0134607-$ or US-0130034-$ or US-0127129-$ or US-0121783-$ or US-0121547-$ or US-0121056-$ or US-0119060-$ or US-0115715-$ or US-0115312-$ or US-0106244-$ or US-0104921-$ or US-0104308-$ or US-0103494-$ or US-0090616-$ or US-0076759-$ or US-0073516-$ or US-0071990-$ or US-0068903-$ or US-0068757-$).did. or (US-0062244-$ or US-0055534-$ or US-0052276-$ or US-0044059-$ or US-0039781-$ or US-0038367-$ or US-0031732-$ or US-0031731-$ or US-0031222-$ or US-0027475-$ or US-0026901-$ or US-0024468-$ or US-0023349-$ or US-0006770-$ or US-0002004-$ or US-0000440-$ or US-D871013-$ or US-D815831-$ or US-D814187-$ or US-9872562-$ or US-9750543-$ or US-9701443-$ or US-9643629-$ or US-9616562-$ or US-9566990-$ or US-9511491-$ or US-9132543-$).did. or (US-8985922-$ or US-8979100-$ or US-8875888-$ or US-8813960-$ or US-8714355-$ or US-8689396-$ or US-D701696-$ or US-8677661-$ or US-8567796-$ or US-8505729-$ or US-8459495-$ or US-8454033-$ or US-D661858-$ or US-8191910-$ or US-8177463-$ or US-8132819-$ or US-8028845-$ or US-7841144-$ or US-7780026-$ or US-7779764-$				

		or US-7658887-$ or US-7503569-$ or US-7367571-$ or US-7263742-$ or US-7212840-$ or US-7147243-$ or US-7066475-$).did. or (US-7044484-$ or US-6983946-$ or US-6948691-$ or US-6945546-$ or US-6641013-$ or US-6637707-$ or US-6619772-$ or US-6601930-$ or US-6547347-$ or US-6431580-$ or US-6371320-$ or US-6367631-$ or US-6347847-$ or US-6176559-$ or US-6109627-$ or US-6085925-$ or US-6050660-$ or US-5988473-$ or US-5951037-$ or US-5797617-$ or US-5628443-$ or US-5608603-$ or US-5595228-$ or US-5538213-$ or US-5429260-$ or US-5301829-$ or US-5240264-$).did. or (US-5105947-$ or US-5035445-$ or US-4168076-$ or US-3974898-$ or US-3506321-$ or US-3117692-$).did. or (US-D232798-$ or US-3225865-$ or US-0299027-$ or US-0292213-$ or US-0243925-$ or US-0221177-$ or US-0186513-$ or US-0125072-$ or US-0099405-$ or US-0094393-$ or US-0034515-$ or US-2970358-$ or US-2430200-$ or US-2042387-$ or US-0376917-$ or US-0349013-$ or US-0326406-$ or US-0320243-$ or US-0318927-$ or US-0308369-$ or US-0290288-$ or US-0277221-$ or US-0274362-$ or US-0271616-$ or US-0271280-$ or US-0266804-$).did. or (US-0257958-$ or US-0254946-$ or US-0239808-$ or US-0236482-$ or US-0225371-$ or US-0223971-$ or US-0220758-$ or US-0220531-$ or US-0219193-$ or US-0217464-$ or US-0207571-$ or US-0206656-$ or US-0205877-$ or US-0195793-$ or US-0194543-$ or US-0186624-$ or US-0184034-$ or US-0181008-$ or US-0180250-$ or US-0178946-$ or US-0174392-$ or US-0171228-$ or US-0169739-$ or US-0168880-$ or US-0166516-$ or US-0166352-$ or US-0165828-$).did. or (US-0165036-$ or US-0161975-$ or US-0161518-$ or US-0160886-$ or US-0155613-$ or US-0154218-$ or US-0153312-$ or US-0147781-$ or US-0147642-$ or US-0146589-$ or US-0145913-$ or US-0145866-$ or US-0145790-$ or US-0145700-$ or US-0144500-$ or US-0139745-$ or US-0139665-$ or US-0139566-$ or US-0138382-$ or US-0134607-$ or US-0130034-$ or US-0127129-$ or US-0121783-$ or US-0121547-$ or US-0121056-$ or US-0119060-$ or US-0115715-$).did. or (US-0115312-$ or US-0106244-$ or US-0104921-$ or US-0104308-$ or US-0103494-$ or US-0090616-$ or US-0076759-$ or US-0073516-$ or US-0071990-$ or US-				

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S125	1,179	B25H3/02.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:23
S126	570	220/4.27.ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:23
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S132	935	B25H1/04.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:24
S133	199	B25H3/021.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:24
S134	1,147	B62B1/14.cpc.	US-PGPUB;	OR	OFF	2020/11/25 23:24

			USPAT; USOCR			
S135	377	A45C7/0045.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:24
S136	473	B25H3/023.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:24
S137	959	B62B5/067.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:24
S138	42	B65D2255/00.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/25 23:24
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S140	16	("3187924" | "5743416" | "D582190" | "4848574" | "3563394" | "4126366" | "6206189" | "6786341" | "20050189308" | "5497877" | "4993583" | "3252614" | "3347394").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/26 00:46
S141	40	("3000684" | "3002630" | "3542446" | "3734526" | "4222544" | "4240684" | "4429850" | "4457527" | "4458963" | "4509648" | "4653638" | "4681233" | "4706918" | "4744613" | "4880192" | "5188242" | "5246286" | "5360121" | "5370263" | "7209098" | "D303306").PN. OR ("5437502").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2020/11/26 00:54
S142	26	("3182856").URPN.	USPAT	OR	OFF	2020/11/26 19:24

11/26/2020 10:08:09 PM
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /G.R.W/

PTO/SB/08 (09-06)
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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	1	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	2,042,387	05-26-1936	COBB DAVID F	
	A2	2,430,200	11-04-1947	Wilson Winfred E.	
	A3	2,970,358	02-07-1961	E. C. Elsner	
	A4	3,117,692	01-14-1964	Carpenter et al.	
	A5	3,506,321	04-14-1970	Hampel	
	A6	3,974,898	08-17-1976	Tullis et al.	
	A7	4,168,076	09-18-1979	Johnson	
	A8	5,035,445	07-30-1991	Poulin	
	A9	5,105,947	04-21-1992	Wise, Thomas W.	
	A10	5,240,264	08-31-1993	Williams	
	A11	5,301,829	04-12-1994	Chrisco	
	A12	5,429,260	07-041995	Vollers; Gary L.	
	A13	5,538,213	07-23-1996	Brown Office Systems Inc.	
	A14	5,595,228	01-21-1997	Meisner et al.	
	A15	5,608,603	03-04-1997	Su	
	A16	5,628,443	05-13-1997	Deutsch	
	A17	5,797,617	08-25-1998	Lin Shiou Chang	
	A18	5,951,037	09-14-1999	Hsieh Hung-Ching	
	A19	5,988,473	11-23-1999	Hagan et al.	
	A20	6,050,660	04-18-2000	Gurley	
	A21	6,085,925	07-11-2000	Chung	
	A22	6,109,627	08-29-2000	Sung Hoan Be	
	A23	6,176,559	01-23-2001	Tiramani et al.	
	A24	6,347,847	02-19-2002	Tiramani et al.	
	A25	6,367,631	04-09-2002	Steigerwald	
	A26	6,371,320	04-16-2002	Sagol	
	A27	6,431,580	08-13-2002	Darren J. Kady	
	A28	6,547,347	04-15-2003	Saito; Yoshiyuki	
	A29	6,601,930	08-05-2003	Tiramani et al.	

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	11/24/2020

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	2	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A30	6,619,772	09-16-2003	Dierbeck	
	A31	6,637,707	10-28-2003	Gates; George D.	
	A32	6,641,013	11-04-2003	Oise	
	A33	6,945,546	09-20-2005	Edward G. Guirlinger	
	A34	6,948,691	09-27-2005	Brock et al.	
	A35	6,983,946	01-10-2006	Sullivan et al.	
	A36	7,044,484	05-16-2006	Wang	
	A37	7,066,475	06-27-2006	Bret E. Barnes	
	A38	7,147,243	12-12-2006	Darren Kady	
	A39	7,263,742	09-04-2007	Guido Valentini	
	A40	7,367,571	05-06-2008	Nichols	
	A41	7,503,569	03-17-2009	Duvigneau	
	A42	7,658,887	02-09-2010	Hovatter	
	A43	7,779,764	08-24-2010	NAIDU et al.	
	A44	7,780,026	08-24-2010	Zuckerman	
	A45	7,841,144	11-30-2010	Pervan; Darko	
	A46	8,028,845	10-04-2011	Himes	
	A47	8,132,819	03-13-2012	Landau; Eitan	
	A48	8,177,463	05-15-2012	Walker; Peter J	
	A49	8,191,910	06-05-2012	Landau et al.	
	A50	8,454,033	06-04-2013	Tsai	
	A51	8,459,495	06-11-2013	Koenig; Andreas	
	A52	8,505,729	08-13-2013	Sosnovsky et al.	
	A53	8,567,796	10-29-2013	Bar-Erez et al.	
	A54	8,677,661	03-25-2014	Michels; Markus	
	A55	8,689,396	04-08-2014	Melvin E. Wolfe	
	A56	8,714,355	05-06-2014	Huang	
	A57	8,813,960	08-26-2014	Fjelland; Douglas J.	
	A58	8,875,888	11-04-2014	Koenig; Andreas	
	A59	8,979,100	03-17-2015	Bensman et al.	
	A60	8,985,922	03-24-2015	Neumann	

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	11/24/2020

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	3	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A61	9,132,543	09-15-2015	Bar-Erez; Sharon	
	A62	9,506,489	11-29-2016	Ko; Kenneth H.	
	A63	9,511,491	12-06-2016	Brunner	
	A64	9,566,990	02-14-2017	Bar-Erez; Sharon	
	A65	9,616,562	04-11-2017	Hoppe; Christopher S.	
	A66	9,643,629	05-09-2017	The Stanley Works Israel Ltd.	
	A67	9,701,443	07-11-2017	Wang; Tzu-Chien	
	A68	9,872,562	01-23-2018	Brunner; Yaron	
	A69	10,434,638	10-08-2019	Tsai	
	A70	2002/0000440	01-03-2002	Sagal et al.	
	A71	2002/0171228	11-21-2002	Kady	
	A72	2003/0115715	06-26-2003	Guido Valentini	
	A73	2003/0146589	08-07-2003	Jarko et al.	
	A74	2003/0184034	10-02-2003	Pfeiffer	
	A75	2003/0205877	11-06-2003	Verna et al.	
	A76	2004/0103494	06-03-2004	Valentini	
	A77	2004/0195793	10-07-2004	Sullivan, Hugh C., et al.	
	A78	2004/0206656	10-21-2004	Dubois et al.	
	A79	2005/0062244	03-24-2005	Guirlinger	
	A80	2005/0104308	05-19-2005	Barnes	
	A81	2005/0139745	06-30-2005	Liao, Chi-Cheng	
	A82	2006/0006770	01-12-2006	Valentini	
	A83	2006/0027475	02-09-2006	Gleason et al.	
	A84	2006/0038367	02-23-2006	Ferraro; Frank A.	
	A85	2006/0119060	06-08-2006	Sullivan et al.	
	A86	2006/0186624	08-24-2006	Kady, Darren	
	A87	2006/0254946	11-16-2006	Becklin	
	A88	2007/0068757	03-29-2007	Tan	
	A89	2007/0090616	04-26-2007	Tompkins	
	A90	2007/0145700	06-28-2007	Ambrose et al.	
	A91	2007/0194543	08-23-2007	Duvigneau	

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Sheet	4	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A92	2008/0104921	05-08-2008	Pervan; Darko	
	A93	2008/0115312	05-22-2008	DiPasquale et al.	
	A94	2008/0121547	05-29-2008	Dur et al.	
	A95	2008/0134607	06-12-2008	Pervan; Darko	
	A96	2008/0169739	07-17-2008	Goldenberg; Ruth	
	A97	2008/0271280	11-06-2008	FUCHS FRANK et al.	
	A98	2008/0277221	11-13-2008	Josefson; Mark L.	
	A99	2008/0308369	12-18-2008	Louis; Robert D.	
	A100	2009/0026901	01-29-2009	Nies, III et al.	
	A101	2009/0071990	03-19-2009	Jardine et al.	
	A102	2009/0145790	06-11-2009	Panosian; Michael Harmik	
	A103	2009/0145866	06-11-2009	Panosian et al.	
	A104	2009/0145913	06-11-2009	Panosian et al.	
	A105	2009/0178946	07-16-2009	Patstone et al.	
	A106	2009/0236482	09-24-2009	SS3 Storage Systems LLC	
	A107	2010/0052276	03-04-2010	Brunner	
	A108	2010/0139566	06-10-2010	Lopuszanski, Michel	
	A109	2010/0147642	06-17-2010	Andochick; Scott E.	
	A110	2010/0219193	09-02-2010	Becklin	
	A111	2011/0073516	03-31-2011	Zelinskiy; Konstantin	
	A112	2011/0139665	06-16-2011	Madsen	
	A113	2011/0155613	06-30-2011	Koenig, Andreas et al.	
	A114	2011/0181008	07-28-2011	BENSMAN;MARK	
	A115	2011/0220531	09-15-2011	Meether et al.	
	A116	2011/174939	07-21-2013	Parts Express International Inc.	
	A117	2012/0160886	06-28-2012	Henny Paul et al.	
	A118	2012/0180250	07-19-2012	KAERCHER GMBH AND CO ALFRED KG	
	A119	2012/0207571	08-16-2012	Scott, Charles Shay	
	A120	2012/0326406	12-27-2012	LIFSHITZ; Omri	
	A121	2013/0024468	01-24-2013	Kocsis, Susan C.	

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				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	5	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

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	A122	2013/0031731	02-07-2013	KAERCHER GMBH AND CO ALFRED KG	
	A123	2013/0031732	02-07-2013	KAERCHER GMBH AND CO ALFRED KG	
	A124	2013/0068903	03-21-2013	Peerless Ind Inc.	
	A125	2013/0121783	05-16-2013	Kelly; Thomas P.	
	A126	2013/0127129	05-23-2013	Bensman, Mark et al.	
	A127	2013/0154218	06-20-2013	TIILIKAINEN	
	A128	2013/0223971	08-29-2013	Grace IV, Robert W.	
	A129	2013/146551	06-13-2013	Electrolux Home Prod Inc.	
	A130	2014/0076759	03-20-2014	ROEHM et al.	
	A131	2014/0161518	06-12-2014	KO	
	A132	2014/0166516	06-19-2014	Martinez; Mark R.	
	A133	2015/0274362	10-01-2015	CHRISTOPHER et al.	
	A134	2015/0376917	12-31-2015	Brunner	
	A135	2016/0023349	01-28-2016	Milwaukee Electric Tool Corporation	
	A136	2016/0130034	05-12-2016	Kuhls; Timo	
	A137	2016/0144500	05-26-2016	CHEN; KUN-CHEN	
	A138	2016/0168880	06-16-2016	Phelan; Matthew	
	A139	2017/0121056	05-04-2017	Wang; Tzu-Chien	
	A140	2017/0138382	05-18-2017	Ko	
	A141	2017/0165828	06-15-2017	Festool GmbH	
	A142	2017/0166352	06-15-2017	Hoppe; Christopher S.	
	A143	2017/0174392	06-22-2017	De Loynes	
	A144	2017/0217464	08-03-2017	Bar-erez et al.	
	A145	2017/0239808	08-24-2017	Hoppe; Christopher S.	
	A146	2017/0257958	09-07-2017	The Stanley Works Israel Ltd.	
	A147	2017/0266804	09-21-2017	Kinskey	
	A148	2017/0318927	11-09-2017	Krause et al.	
	A149	2017/0349013	12-07-2017	GRONHOLM	
	A150	2018/0044059	02-15-2018	BRUNNER; Yaron	

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				Art Unit	To be determined
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	A151	2018/0153312	06-07-2018	Buck James et al.	
	A152	2018/0161975	06-14-2018	Brunner; Yaron	
	A153	2018/0220758	08-09-2018	Rothenberger AG	
	A154	2018/0290288	10-11-2018	BRUNNER; Yaron	
	A155	2019/0002004	01-03-2019	BRUNNER; Yaron	
	A156	2019/0031222	01-31-2019	TAKYAR et al.	
	A157	2019/0039781	02-07-2019	Kogel	
	A158	2019/0106244	04-11-2019	Brunner et al.	
	A159	2019/0225371	07-25-2019	Hoppe et al.	
	A160	2020/0055534	02-20-2020	HASSELL	
	A161	2020/0147781	05-14-2020	Squiers et al.	
	A162	2020/0165036	05-28-2020	Squiers et al.	
	A163	D395,533	06-23-1998	Morison et al.	
	A164	D437,669	02-13-2001	BLASON et al.	
	A165	D456,972	05-07-2002	BLASON et al.	
	A166	D525,789	08-01-2006	Hosking	
	A167	D630,851	01-18-2011	Landau et al.	
	A168	D653,832	02-07-2012	Vilkomirski et al.	
	A169	D661,858	06-12-2012	Lifshitz et al.	
	A170	D663,952	07-24-2012	CREVLING et al.	
	A171	D664,354	07-31-2012	CREVLING et al.	
	A172	D668,869	10-16-2012	Yamamoto et al.	
	A173	D674,605	01-22-2013	Vilkomirski et al.	
	A174	D701,696	04-01-2014	Shitrit et al.	
	A175	D738,106	09-08-2015	Shitrit	
	A176	D753,394	04-12-2016	Brunner	
	A177	D753,395	04-12-2016	Brunner	
	A178	D765,974	09-13-2016	Tonelli et al.	
	A179	D770,179	11-01-2016	Menirom	
	A180	D790,221	06-27-2017	Yahav et al.	
	A181	D814,187	04-03-2018	Caglar	

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	A182	D815,831	04-24-2018	Tonelli	
	A183	D816,334	05-01-2018	Brunner	
	A184	D826,510	08-21-2018	Brunner	
	A185	D828,671	09-11-2018	COPE et al.	
	A186	D833,744	11-20-2018	Yahav et al.	
	A187	D837,515	04-08-2019	Shpitzer	
	A188	D871,013	12-24-2019	LIU	
	A189	D895,966	09-15-2020	Brunner et al.	
	A190	D895,967	09-15-2020	Brunner et al.	
	A191	D896,517	09-22-2020	Brunner et al.	
	A192	D896,518	09-22-2020	Brunner et al.	

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS

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FOREIGN PATENT DOCUMENTS

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	A193	CN101068661	11-07-2007	BOSCH GMBH ROBERT		
	A194	CN102137795	07-27-2011	TTS ToolTechnic Systems AG		
	A195	CN102248523	11-23-2011	CHANGHONG HAN et al.		
	A196	CN102469899	05-23-2012	KAERCHER GMBH AND CO KG ALFRED		
	A197	CN102834035	12-19-2012	KAERCHER GMBH AND CO ALFRED KG		
	A198	CN103118578	05-22-2013	KAERCHER GMBH AND CO ALFRED KG		
	A199	CN103659777	03-26-2014	Bosch GMBH Robert		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	8	of	12	Attorney Docket Number	066749-2792

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	A200	CN200947356	09-12-2007	FU GANG		
	A201	CN204161752	02-18-2015	Meridian International Co Ltd		
	A202	CN2608238	03-31-2004	BAO JIANGANG		
	A203	CN302371147	03-27-2013	吉田攻一郎		
	A204	DE 202015005752	11-21-2016	PLASTON AG		
	A205	DE 202015105053	10-31-2016	AUER PACKAGING GMBH		
	A206	DE102004057870	06-01-2006	BOSCH GMBH ROBERT		
	A207	DE102010003754	10-13-2011	KAERCHER GMBH AND CO ALFRED KG		
	A208	DE102010003756	10-13-2011	KAERCHER GMBH AND CO ALFRED KG		
	A209	DE102012106482	01-23-2014	WAIGEL JOACHIM		
	A210	DE102012220837	05-15-2014	BOSCH GMBH ROBERT		
	A211	DE102015013053	04-13-2017	BURCHIA ROLF		
	A212	DE102015112204	02-16-2017	PERL MICHAEL		
	A213	DE19750543	05-20-1999	FESTO TOOLTECHNIC GMBH AND CO		
	A214	DE202011002617	04-28-2011	Bekuplast Kunststoffverarbeitungs-GmbH		
	A215	DE202014103695	10-30-2014	Metabowerke Gmbh		
	A216	DE20218996	03-06-2003	TTS TOOLTECHNIC SYSTEMS AG		
	A217	DE29708343	07-03-1997	FLIESEN RICHTER GMBH		
	A218	DE3510307	09-25-1986	SPIELHOFF HANS-PETER		
	A219	DE4415638	11-09-1995	Halm		
	A220	DE9313802	12-02-1993	TUNG I ENTERPRISE CO		
	A221	DE402018201520	05-11-2018	Dirk SCHLENZKA		
	A222	EM000705231-0001	04-12-2007	Terry Store-Age S.P.A.		
	A223	EM002419283-0001	03-06-2014	Keter Plastic Ltd.		
	A224	EP0916302	05-19-1999	FESTO TOOLTECHNIC GMBH AND CO		
	A225	EP1321247	06-25-2003	VALENTINI GUIDO		

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FOREIGN PATENT DOCUMENTS

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	A226	EP1428764	06-16-2004	DUBOIS JEAN-MARC et al.		
	A227	EP1819487	08-22-2007	BOSCH GMBH ROBERT		
	A228	EP2289671	03-02-2011	Stanley Works Israel		
	A229	EP2346741	07-27-2011	MADSEN JENS OLE		
	A230	EP2456341	05-30-2012	KAERCHER GMBH AND CO ALFRED KG		
	A231	EP2555660	02-13-2013	KAERCHER GMBH AND CO ALFRED KG		
	A232	EP2555661	02-13-2013	KAERCHER GMBH AND CO ALFRED KG		
	A233	EP2805799	11-23-2016	FLEISCHMANN BERND et al.		
	A234	EP3141354	03-15-2017	KOCH SIMON et al.		
	A235	GB2047181B	02-02-1983	REUNIS SA ATELIERS		
	A236	GB2110076	06-15-1983	Ostling Bernt et al.		
	A237	GB2330521	04-28-1999	SPOONER PAUL		
	A238	GB2406331	03-30-2005	JEFFRIES JULIAN CLIFFORD		
	A239	GB2413265	10-26-2005	THOMSON BRIAN		
	A240	GB694707	07-22-1953	GEORGE ARTHUR CHARD		
	A241	GB2449934	12-10-2008	Protrend Co Ltd.		
	A242	JP D1180963	08-04-2003	Name not in English		
	A243	JP D1455321	11-12-2012	Name not in English		
	A244	JP D1625407	02-25-2019	Name not in English		
	A245	JP1276744	07-18-2006	Hirofumi Kishimoto		
	A246	JP1477050	08-19-2013	Ryosuke Omachi		
	A247	JP2003194020A	07-09-2003	SUGIMURA ATSUAKI		
	A248	JP2013022972	02-04-2013	IZUMI DOI, HIDEKI NOMA, MASAYUKI NAKANISHI		
	A249	JP2013022976	02-04-2013	DAIFUKU KK		
	A250	JPD1395115	08-16-2010	Toyoharu Senda		
	A251	JPD1395116	08-16-2010	Toyoharu Senda		
	A252	KR 3008066040000	07-22-2015	Woojubon Co. LTD		

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	11/24/2020

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				Art Unit	To be determined
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	A253	KR 3008496000000	04-15-2016	Hwang, Hyung Keun		
	A254	KR30-0271616	02-09-2000	Joong Chui Ahm		
	A255	KR30-0320243	06-10-2002	Joung Gu Kang		
	A256	KR3008422360000	03-02-2016	NPC Co., Ltd. HYUNDAI GLOVIS Co., Ltd.		
	A257	KR3008599650000	06-22-2016	NPC Co., Ltd.		
	A258	KR3008812960000	11-15-2016	NPC Co., Ltd.		
	A259	KR3009995990000	03-27-2019	Korea Container Pool Co, Ltd		
	A260	TW 206875	05-21-1993	Name not in English		
	A261	TW D192092	08-11-2018	Name not in English		
	A262	TW135074	06-01-2010	Yi Hua Wu		
	A263	TW168686	07-01-2015	Kang Delun Business Co., Ltd.		
	A264	TW174412	03-21-2016	Lee Hsin Chang		
	A265	TWI324578	05-11-2010	NAIDU VISHNU et al.		
	A266	WO07121745	11-01-2007	MADSEN JENS OLE		
	A267	WO07121746	11-01-2007	MADSEN JENS OLE		
	A268	WO09140965	11-26-2009	MADSEN JENS OLE		
	A269	WO11009480	01-27-2011	RICKLEFSEN DIRK et al.		
	A270	WO13026084	02-28-2013	VAN DER LINDE et al.		
	A271	WO14125488	08-21-2014	BRUNNER YARON		
	A272	WO17212840	12-14-2017	FURUTA YOSHIHISA		
	A273	WO2005/045886	05-19-2005	Brooks Automation, Inc.		
	A274	WO2007121745A1	11-01-2007	MADSEN JENS OLE		
	A275	WO2007/121746	11-01-2007	J.O. MADSEN APS; MADSEN JENS OLE		
	A276	WO2009/140965	11-26-2009	J.O. MADSEN APS; MADSEN JENS OLE		
	A277	WO2011/009480	01-27-2011	HENSEL MAIC; HESS STEFAN; KAERCHER GMBH & CO KG		

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	A278	WO2013/026084	02-28-2013	CONNOR PAUL FRANCIS; DEMAIN TECHNOLOGY PTY LTD.		
	A279	WO2014/125488	08-21-2014	KETER PLASTIC LTD		
	A280	WO2016142935	09-15-2016	BRUNNER, Yaron et al.		
	A281	WO2017028845	02-23-2017	ROTHENBERGER AG		
	A282	WO2017191628	11-09-2017	BRUNNER YARON		
	A283	WO2017/212840	12-14-2017	GENESIS CO., LTD.		

NON PATENT LITERATURE DOCUMENTS			
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	A284	"Blitz Box – Portable Storage Box / Shelf," The Green Head Finds Cool New Stuff, https://www.thegreenhead.com/2013/03/blitz-box-portable-storage-box-shelf.php, Per Wayback, website dates back to February 15, 2015, 5 pages.	
	A285	"BluCave Universal Storage System," BATAVIA Tools to Build, https://batavia.eu/blucave-storage-system/, believed to be available at least as early as November 29, 2017, 5 pages.	
	A286	"Dewalt TSTAK Carrier Trolley," ITS, https://www.its.co.uk/pd/171229-Dewalt-TSTAK-Carrier-Trolley-_DEW171229.htm, Per Wayback, website dates back to May 2, 2015, 2 pages.	
	A287	"DeWalt TSTAK Vac Rack (Suits DW DWV902M & DWV900L) DWV9500-XJ," Get Tools Direct, https://www.gettoolsdirect.com.au/dewalt-tstak-vac-rack-suits-dwv902m-and-dwv900l-dwv9500-xj.html, believed to be available at least as early as November 29, 2017, 4 pages.	
	A288	"Hopkins FloTool 91002 Rhino Box with Mount," Amazon.com, https://www.amazon.com/exec/obidos/ASIN/B003K15F3I/20140000-20, believed to be available at least as early as November 29, 2017, 7 pages.	
	A289	"Tool Skool, TSTAK Phase 2 Upgrades | TSTAK Carts – First Look – Tool Skool," YouTube, September 7, 2013, https://www.youtube.com/watch?v=jb06y6J1dr4&feature=youtu.be&t=197, 1 page.	
	A290	Batavia Gmbh, BluCave Storage System, https://protect-us.mimecast.com/s/5XIGCR6KypcgJnIKi9EDoim?domain=batavia.eu, believed to be available at least as early as November 29, 2017, 7 pages.	
	A291	BluCave Video, https://www.youtube.com/watch?v=Sw7fQQPwoOtY&feature=youtu.be&t=32, believed to be available at least as early as November 29, 2017.	

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	A292	International Search Report and Written Opinion for International Application No. PCT/IL2019/050689, dated August 23, 2019, 21 pages.	
	A293	International Search Report and Written Opinion for International Application No. PCT/US2018/033161, dated August 6, 2018, 14 pages.	
	A294	International Search Report and Written Opinion for International Application No. PCT/US2018/044629, dated January 9, 2019, 22 pages.	
	A295	International Search Report and Written Opinion for International Application No. PCT/US2019/014940, dated July 26, 2019, 7 pages.	
	A296	International Search Report and Written Opinion for International Application No. PCT/IL2020/050433, dated June 21, 2020, 14 pages	
	A297	Sortimo Logistix, "Mobile Sortimente", brochure, believed to be available at least as early as November 29, 2017, 17 pages.	
	A298	STUART, “Ryobi ToolBlox Tool Cabinet System!,” TOOLGUYD, September 18, 2014, https://toolguyd.com/ryobi-toolblox-cabinets/, 23 pages.	
	A299	STUART, “Sys-Cart Base, a Systainer Mounting Platform,” TOOLGUYD, July 28, 2014, https://toolguyd.com/systainer-sys-cart-mounting-base/, 11 pages.	
	A300	VERTAK, https://www.alibaba.com/product-detail/Vertak-global-patented-multi-funciton-portable_60217794260.html, believed to be available at least as early as November 29, 2017.	
	A301	Non-Final Rejection issued April 12, 2018, in United States Application No. 15/826,201. (16 Pages) (Docket No. J699501JS01 446373-419).	

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Sheet 1 of 3

Complete if Known	
Application Number	17/064,371
Filing Date	October 6, 2020
First Named Inventor	Yaron Brunner
Art Unit	3736
Examiner Name	Weinerth, Gideon R.
Attorney Docket Number	066749-2792

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	A1	3,225,865	12-28-1965	J. W. Downey	
	A2	4,971,201	11-20-1990	Sathre	
	A3	5,098,235	03-24-1992	Svetlik et al.	
	A4	6,305,498	10-23-2001	Itzkovitch	
	A5	9,506,489	11-29-2016	Ko	
	A6	9,725,209	08-08-2017	Ben-Gigi	
	A7	10,106,180	10-23-2018	Bar-Erez et al.	
	A8	10,583,962	03-10-2020	Brunner et al.	
	A9	2002/0125072	09-12-2002	Levy	
	A10	2003/0094393	05-22-2003	Sahm, III	
	A11	2012/0292213	11-22-2012	Brunner	
	A12	2015/0034515	02-05-2015	Monyak et al.	
	A13	2016/0221177	08-04-2016	Reinhart	
	A14	2018/0099405	04-12-2018	Reinhart	
	A15	2018/0186513	07-05-2018	Brunner	
	A16	2020/0243925	07-30-2020	Polakowski et al.	
	A17	2020/0299027	09-24-2020	Brunner et al.	
	A18	D232,798	09-17-1974	Roche et al.	
	A19	D319,016	08-13-1991	Kahl	
	A20	D325,324	04-14-1992	Kahl	
	A21	D326,815	06-09-1992	Meisner et al.	
	A22	D340,167	10-12-1993	Kahl	
	A23	D352,208	11-08-1994	Brookshire	
	A24	D361,511	08-22-1995	Dickinson et al.	
	A25	D415,393	10-19-1999	Kei	
	A26	D420,860	02-22-2000	Golichowski et al.	
	A27	D527,225	08-29-2006	Krieger et al.	
	A28	D536,580	02-13-2007	Krieger et al.	
	A29	D649,350	11-29-2011	Shitrit	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: November 12, 2020

(use as many sheets as necessary)

Sheet 2 of 3

Complete if Known	
Application Number	17/064,371
Filing Date	October 6, 2020
First Named Inventor	Yaron Brunner
Art Unit	3736
Examiner Name	Weinerth, Gideon R.
Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A30	D738,105	09-08-2015	Shitrit	
	A31	D753,396	04-12-2016	Brunner	
	A32	D777,426	01-31-2017	Dahl	
	A33	D784,089	04-18-2017	Furneaux et al.	
	A34	D803,631	11-28-20017	Min et al.	
	A35	D806,483	01-02-2018	Stanford et al.	
	A36	D831,352	10-23-2018	Brunner	
	A37	D836,995	01-01-2019	Carey et al.	
	A38	D839,681	02-05-2019	Evron et al.	
	A39	D845,080	04-09-2019	Jacobsen	
	A40	D845,081	04-08-2019	Jacobsen	
	A41	D857,387	08-27-2019	Shpitzer	
	A42	D873,085	01-21-2020	DeFrancia	
	A43	D880,252	04-07-2020	Jacobsen	
	A44	D880,951	04-14-2020	Jacobsen	
	A45	D883,752	05-12-2020	Carey et al.	
	A46	D887,788	06-23-2020	Meda et al.	
	A47	D888,422	06-30-2020	Yang	
	A48	D888,503	06-30-2020	Meda et al.	
	A49	D891,193	06-28-2020	Stanford et al.	
	A50	D891,195	07-28-2020	Zhou	
	A51	D891,875	08-04-2020	Olson	
	A52	D892,565	08-11-2020	Astle et al.	
	A53	D895,375	09-08-2020	Hurley, Jr.	

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Application Document Serial Number-Kind Code[2] (*if known*)	Filing Date of Cited Document MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	17/064,371
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				Art Unit	3736
(use as many sheets as necessary)				Examiner Name	Weinerth, Gideon R.
Sheet	3	of	3	Attorney Docket Number	066749-2792

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	A54	CN102608238	07-25-2012	Zhengzhou Tobacco Res Cntc		
	A55	JPD1503434	07-28-2014	Name not in English		
	A56	JPD1665028	08-03-2020	Keter Plastic LTD et al.		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]

Examiner Signature		Date Considered	

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Bibliographic data: CN102608238 (A) — 2012-07-25

Method for measuring interception amount in filter tip to benzo(a)pyrene in main stream smoke of cigarette

Inventor(s): BIN PENG; KEJIAN LIU; JIZHAO GUO; QUANPING YAN; YAQIONG QIN; XIANG LI; CONG NIE ± (PENG BIN, ; LIU KEJIAN, ; GUO JIZHAO, ; YAN QUANPING, ; QIN YAQIONG, ; LI XIANG, ; NIE CONG)

Applicant(s): ZHENGZHOU TOBACCO RES CNTC ± (ZHENGZHOU TOBACCO RESEARCH INSTITUTE OF CNTC)

Classification: **- international:** ***G01N30/06; G01N30/72***
- cooperative:

Application number: CN20121070389 20120317 Global Dossier

Priority number(s): CN20121070389 20120317

Abstract of CN102608238 (A)

The invention provides a method for measuring the interception in a filter tip to benzo(a)pyrene in a main stream smoke of a cigarette, which is characterized by comprising the following steps of: 1) selecting an extracting agent; (2) heating and gasifying the extracting agent, so as to enable condensed liquid of the gasified extracting agent to flow through the filter tip to extract the benzo(a)pyrene in the filter tip; 3) purifying extracted liquid by using a purifying material, and then heating and gasifying again; (4) circularly heating, gasifying, extracting and purifying; and 5) carrying out GC-MS (Gas Chromatograph-Mass Spectrometer) quantitative analysis the final extracted liquid. According to the principles disclosed by the invention, a boiling point of the benzo(a)pyrene is higher than that of the extracting agent, and therefore, the extracting agent in the extracted liquid is heated and gasified again, and the benzo(a)pyrene is remained. After the operations are carried out in a circulating way for a while, the benzo(a)pyrene in the filter tip is entirely extracted and a residual extracting agent is finally gasified out. Finally, the GC-MS quantitative analysis is carried out on concentrated liquid. The method disclosed by the invention integrates extraction, purification and concentration, has few operation steps and is simple and liable to operate.

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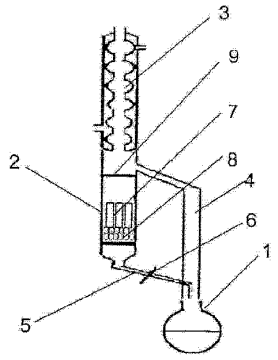
权利要求书 1 页 说明书 3 页 附图 1 页

(54)发明名称

测定滤嘴对卷烟主流烟气中苯并[a]芘截留量的方法

(57)摘要

一种测定滤嘴对卷烟主流烟气中苯并[a]芘截留量的方法，其特征在于：包括以下步骤：1)选择提取剂；2)加热气化提取剂，使气化后的提取剂冷凝液流过滤嘴，对其中的苯并[a]芘进行提取；3)利用净化材料对提取液进行净化后，再次被加热气化；4)循环加热气化、提取净化过程；5)对最终提取液进行GC-MS定量分析。本发明原理在于：由于苯并[a]芘的沸点高于提取剂的沸点，因此提取液中仅提取剂被再次被加热气化，苯并[a]芘则被保留下来，如此循环一段时间，待滤嘴中的苯并[a]芘完全被提取，最后将多余的提取剂气化出去，最后对浓缩液进行GC-MS定量分析。本发明集提取、净化和浓缩一体，操作步骤少，简单易行。



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1. 一种测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法，其特征在于：包括以下步骤：

1）选择沸点低于苯并 [a] 芘的提取剂；

加热气化提取剂，使气化后的提取剂冷凝液流过滤嘴，对滤嘴中的苯并 [a] 芘进行提取，得到提取液；

利用净化材料对提取液进行净化后，除去苯并 [a] 芘以外的中等极性和极性较强的物质，如色素类化合物，再次被加热气化；

循环加热气化、提取净化过程，直至滤嘴中的苯并 [a] 芘完全被提取；

对步骤 4）中的最终提取液进行 GC-MS 定量分析。

2. 根据权利要求 1 所述的测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法，其特征在于：提取剂为正己烷或环己烷。

3. 根据权利要求 1 所述的测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法，其特征在于：所用净化材料为已干燥的、粒径为 30-500μm 的球形硅胶；最佳为 50μm 球形硅胶。

4. 根据权利要求 1 所述的测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法，其特征在于：所述的加热气化温度为 75 ～ 95℃，通过水浴加热方式进行。

5. 根据权利要求 1 所述的测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法，其特征在于：所述的冷凝温度为 5 ～ 15℃。

6. 根据权利要求 1 所述的测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法，其特征在于：所述的循环提取时间为 1 ～ 4h，最佳为 2 小时。

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测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法

[0001]

技术领域

[0002] 本发明涉及一种苯并 [a] 芘的测定方法，更具体说是涉及一种测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法。

[0003]

背景技术

[0004] 滤嘴作为抽烟者与主流烟气之间的桥梁，可以有效地滤除烟气中的部分有害成分，因而得到了广泛的重视与应用。测定滤嘴对卷烟主流烟气中有害成分的截留量，可以为科学设计卷烟滤嘴提供技术支撑。

[0005] 目前，对于卷烟主流烟气中苯并 [a] 芘释放量的测定方法比较成熟，我国已经有了相关的标准方法（《GB/T 21130-2007 卷烟 烟气总粒相物中苯并 [a] 芘的测定》）。然而，对于滤嘴中截留的苯并 [a] 芘没有相关的标准方法。已有的研究报道例如《卷烟烟气中稠环芳烃的分析研究》中介绍的测定滤嘴从卷烟主流烟气中截留的苯并 [a] 芘的方法都是先用溶剂将滤嘴中的苯并 [a] 芘萃取出来后，再经过净化处理，最后利用浓缩装置对样品进行浓缩、富集，然后采用气质或者液质进行定量分析。

[0006]

发明内容

[0007] 本发明的目的正是针对上述已有测定方法存在的提取、净化和浓缩分别进行操作的问题，而提供的一种可同时实现提取、净化和浓缩的方法，对滤嘴中截留的苯并 [a] 芘进行测定。

[0008] 本发明的目的是通过以下技术方案来实现的：

本发明的测定滤嘴对卷烟主流烟气中苯并 [a] 芘截留量的方法，包括以下步骤：

1）选择沸点低于苯并 [a] 芘的提取剂；

2）加热气化提取剂，使气化后的提取剂冷凝液流过滤嘴，对滤嘴中的苯并 [a] 芘进行提取，得到提取液；

3）利用净化材料对提取液进行净化后，除去苯并 [a] 芘以外的中等极性和极性较强的物质，如色素类化合物，再次被加热气化；

4）循环加热气化、提取净化过程，直至滤嘴中的苯并 [a] 芘完全被提取；

5）对步骤 4）中的最终提取液进行 GC-MS 定量分析。

[0009] 所述提取剂为正己烷或环己烷。

[0010] 所用净化材料为已干燥的、粒径为 30-500μm 的球形硅胶；最佳为 50μm 球形硅胶。

[0011] 所述的加热气化温度为 75 ～ 95℃，通过水浴加热方式进行；所述的冷凝温度为

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5 ～ 15℃。

[0012] 所述的循环提取时间为 1 ～ 4h，最佳为 2 小时。

[0013] 滤嘴的数量可为 10-20 个。

[0014] 本发明所述的 GC-MS 定量分析方法与《GB/T 21130-2007 卷烟 烟气总粒相物中苯并 [a] 芘的测定》所述仪器与条件相同。

[0015] 本发明所用的提取装置包括水浴加热收集瓶、提取净化腔体和设置在提取净化腔体上方的冷凝管构成，提取净化腔体中设置有待测滤嘴，净化材料铺设在滤嘴下面，提取净化腔体底部设有与收集瓶连通的提取液回流管并由阀门控制，收集瓶上端口设有通入提取净化腔体的气化管，该气化管出口位置位于冷凝管与待测滤嘴之间。工作时，关闭阀门，水浴加热收集瓶中的提取剂，待冷凝下来的提取剂浸没滤嘴后，调节阀门，使冷凝下来的提取剂和回流管流出的提取液速度基本一致，循环气化提取一段时间(约 2 小时)后，滤嘴中的苯并 [a] 芘完全被提取，关闭阀门，继续水浴加热，待收集瓶中的提取液浓缩至 1-2 毫升，即可进行 GC-MS 定量分析。

[0016] 本发明所依据的科学原理在于：由于苯并 [a] 芘的沸点高于提取剂的沸点，因此提取液中仅提取剂被再次被加热气化，苯并 [a] 芘则被保留下来，如此循环一段时间，待滤嘴中的苯并 [a] 芘完全被提取，最后将多余的提取剂气化出去，最后对浓缩液进行 GC-MS 定量分析。

[0017] 本发明与现有的一些分析方法相比较，集提取、净化和浓缩一体，操作步骤少，简单易行。

[0018]

附图说明

[0019] 图 1 为本发明所用提取装置的结构示意图。

[0020] 图中：1. 收集瓶，2. 提取净化腔体，3. 冷凝管，4. 气化管，5. 回流管，6. 阀门，7. 滤嘴，8. 净化材料，9. 定位刻线。

[0021]

具体实施方式

[0022] 本发明以下结合实施例做进一步说明：

实施例 1

按附图接好实验装置，放入 5g 已干燥的、粒径约为 50μm 的球形硅胶和 10 个 28mm 长抽吸后的滤嘴，以 50ml 正己烷作为提取剂，关闭阀门，85℃水浴加热，待冷凝下来的提取剂浸没滤嘴后，调节阀门，使冷凝回流的速度与提取液流出的速度一致，提取 2h 后，关闭阀门，继续水浴加热，待冷凝液面至提取净化腔体上的定位刻线位置(本实验中，刻线至阀门的空腔体积为 60ml)，取下收集瓶，此时收集瓶内提取液的体积约为 1 ～ 2ml，按《GB/T 21130-2007 卷烟 烟气总粒相物中苯并 [a] 芘的测定》所述仪器与条件定量分析苯并 [a] 芘。

[0023] 表 1 滤嘴苯并 [a] 芘含量测定结果

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每个滤嘴的含量	平行测定			
	1	2	3	4
苯并[a]芘 (ng)	3.08	3.39	3.51	3.67

实施例 2

加标回收率实验。

[0024] 按附图接好实验装置，放入 7g 已干燥的、粒径约为 50μm 的球形硅胶和 10 个 28mm 长添加了已知量的苯并 [a] 芘的滤嘴，以 50ml 环己烷作为提取剂，关闭阀门，95℃水浴加热，待冷凝下来的提取剂浸没滤嘴后，调节阀门，使冷凝回流的速度与提取液流出的速度一致，提取 2.5h 后，关闭阀门，继续水浴加热，待冷凝液面至提取净化腔体的定位刻线位置（本实验中，刻线至阀门的空腔体积为 60ml），取下收集瓶，此时收集瓶内提取液的体积约为 1 ～ 2ml，按《GB/T 21130-2007 卷烟 烟气总粒相物中苯并 [a] 芘的测定》所述仪器与条件定量分析苯并 [a] 芘。根据实际加入量和测定结果，计算加标回收率。

[0025] 表 2 苯并 [a] 芘回收率

标准物质加入量 (ng)	40.21				
实测值 (ng)	37.59	38.87	38.91	37.19	37.02
回收率 (%)	93.5	96.7	96.8	92.5	92.1

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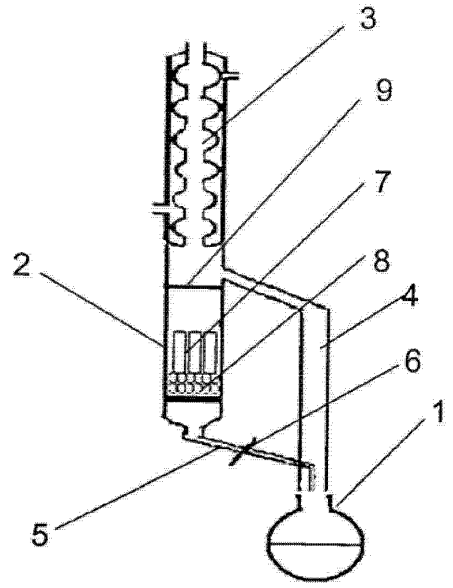


图 1

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 670
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

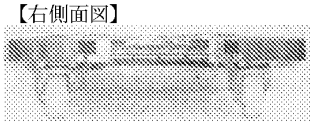
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（４５）【発行日】平成２６年7月２８日（２０１４．７．２８）
（１２）【公報種別】意匠公報（Ｓ）
（１１）【登録番号】意匠登録第１５０３４３４号（Ｄ１５０３４３４）
（２４）【登録日】平成２６年6月２７日（２０１４．６．２７）
（５４）【意匠に係る物品】台車
（５２）【意匠分類】Ｇ２－５００
（５１）【国際意匠分類（参考）】１２－０１、１２－０２、１２－０８、１２－１１、２１－０３
【Ｄターム】Ｇ２－５００ＡＢ
（２１）【出願番号】意願２０１３－２２９７２（Ｄ２０１３－２２９７２）
（２２）【出願日】平成２５年１０月１日（２０１３．１０．１）
（７２）【創作者】
【氏名】水口　稔
【住所又は居所】石川県白山市吉野オ５２－４
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【識別番号】３０９０１９６０４
【氏名又は名称】水口　稔
【住所又は居所】石川県白山市吉野オ５２－４
【審査官】生亀　照恵
【図面】
【正面図】



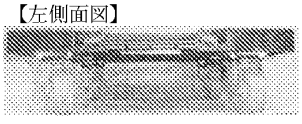
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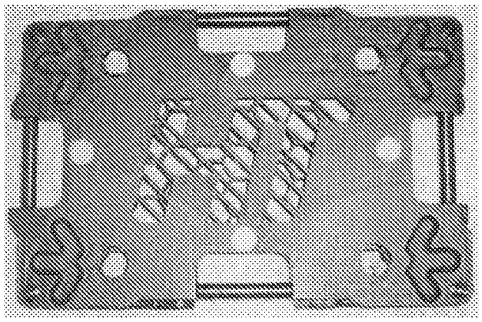
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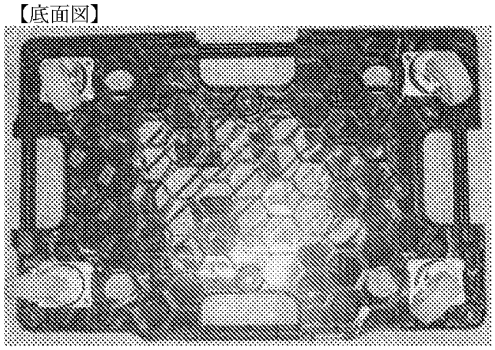
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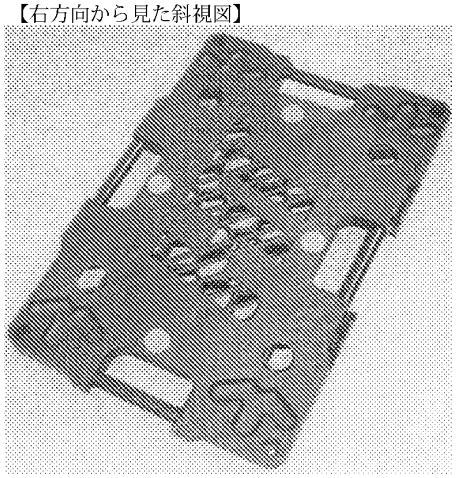
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【底面図】

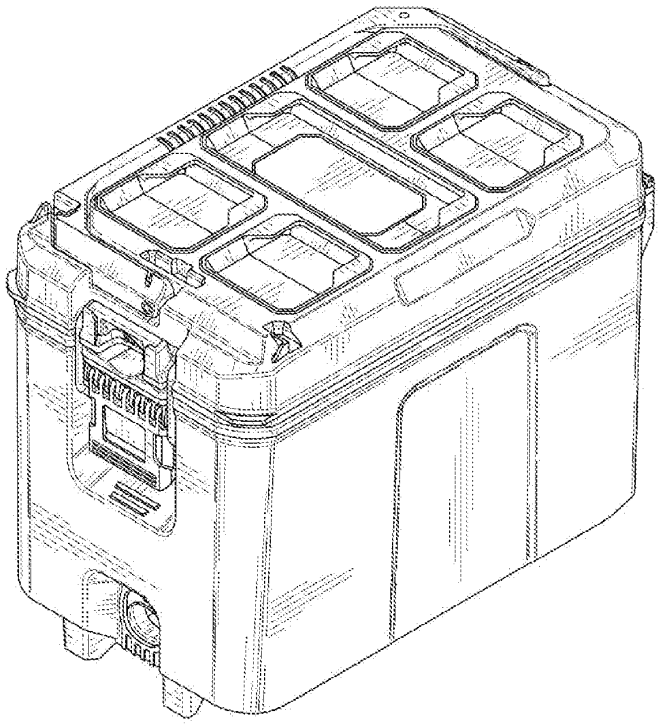


【右方向から見た斜視図】

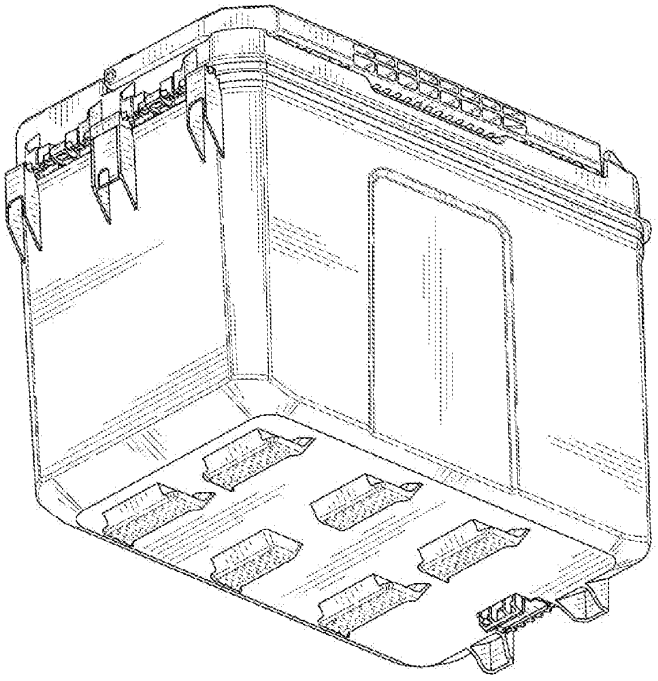


（１９）【発行国・地域】日本国特許庁（ＪＰ）
（４５）【発行日】令和２年８月３日（２０２０．８．３）
（１２）【公報種別】意匠公報（Ｓ）
（１１）【登録番号】意匠登録第１６６５０２８号（Ｄ１６６５０２８）
（２４）【登録日】令和２年７月１４日（２０２０．７．１４）
（５４）【意匠に係る物品】クーラーボックス
（５２）【意匠分類】Ｃ５－３２５１
（５１）【国際意匠分類】Ｌｏｃ（１２）Ｃｌ．７－１０
【Ｄターム】Ｃ５－３２５１ＶＺＡ
（２１）【出願番号】意願２０１９－２６１２８（Ｄ２０１９－２６１２８）
（２２）【出願日】令和１年１１月２６日（２０１９．１１．２６）
（３１）【優先権主張番号】２９／６９３，１４１
（３２）【優先日】令和１年５月３１日（２０１９．５．３１）
（３３）【優先権主張国・地域又は機関】米国（ＵＳ）
（７２）【創作者】
【氏名】ヤーロン　ブルナー
【住所又は居所】イスラエル国　３６５７９００　グバット
（７２）【創作者】
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【識別番号】５１０２８７７８４
【氏名又は名称】ケター　プラスチック　リミテッド
【氏名又は名称原語表記】Ｋｅｔｅｒ　Ｐｌａｓｔｉｃ　Ｌｔｄ．
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【住所又は居所原語表記】１４ｔｈ　Ｆｌｏｏｒ，　１　Ｓａｐｉｒ　Ｓｔｒｅｅｔ，　Ｉｎｄｕｓｔｒｉａｌ　Ｚｏｎｅ，　４６８５２０５　Ｈｅｒｚｌｉｙａ，　Ｉｓｒａｅｌ
（７３）【意匠権者】
【識別番号】５９１１１８３５１
【氏名又は名称】ミルウォーキー　エレクトリック　ツール　コーポレーション
【氏名又は名称原語表記】ＭＩＬＷＡＵＫＥＥ　ＥＬＥＣＴＲＩＣ　ＴＯＯＬ　ＣＯＲＰＯＲＡＴＩＯＮ
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【識別番号】１００１３３４００
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【氏名又は名称】阿部　達彦
（７４）【代理人】
【識別番号】１００１３７７４１
【弁理士】
【氏名又は名称】小暮　理恵子
（７４）【代理人】
【識別番号】１００１９５５０１

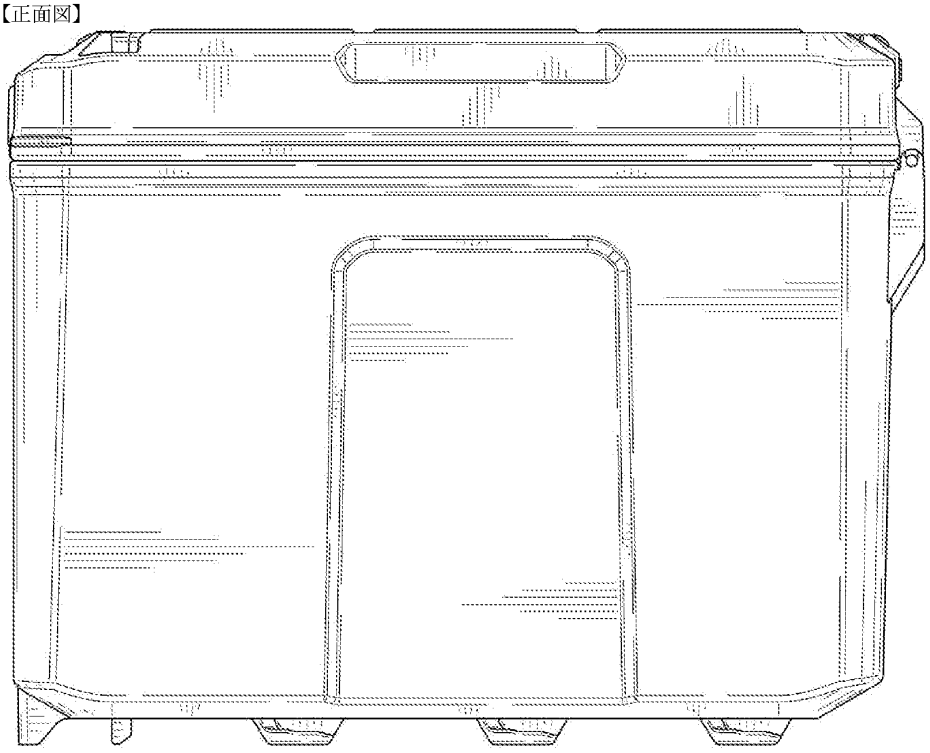
【弁理士】
【氏名又は名称】行田　朋弘
（７４）【代理人】
【識別番号】１００１７１２９５
【弁理士】
【氏名又は名称】岡村　太一
【審査官】木村　智加
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【第一の斜視図】



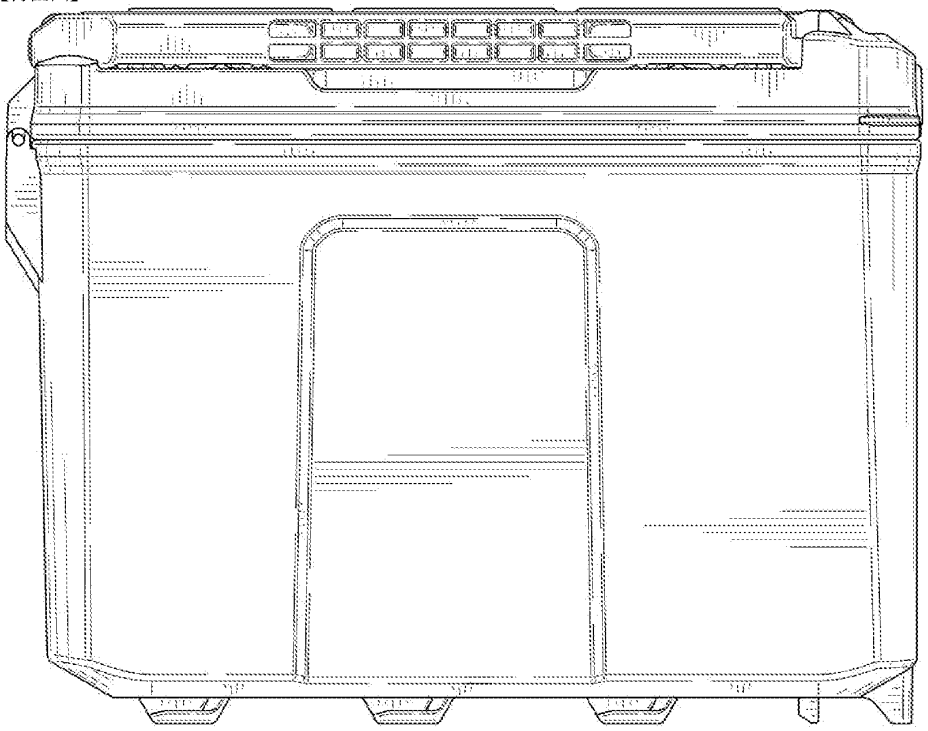
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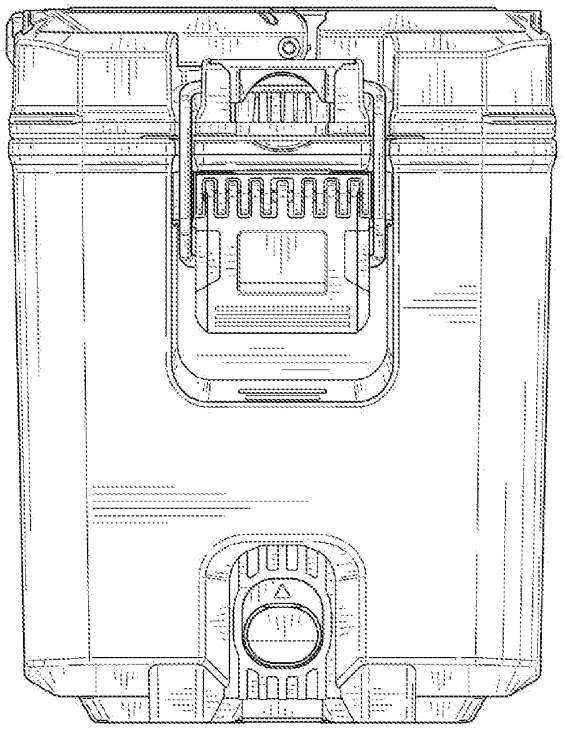
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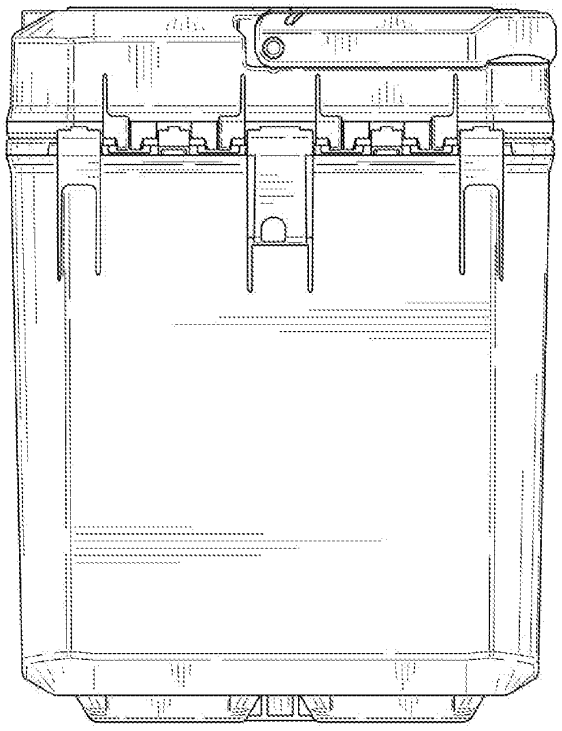
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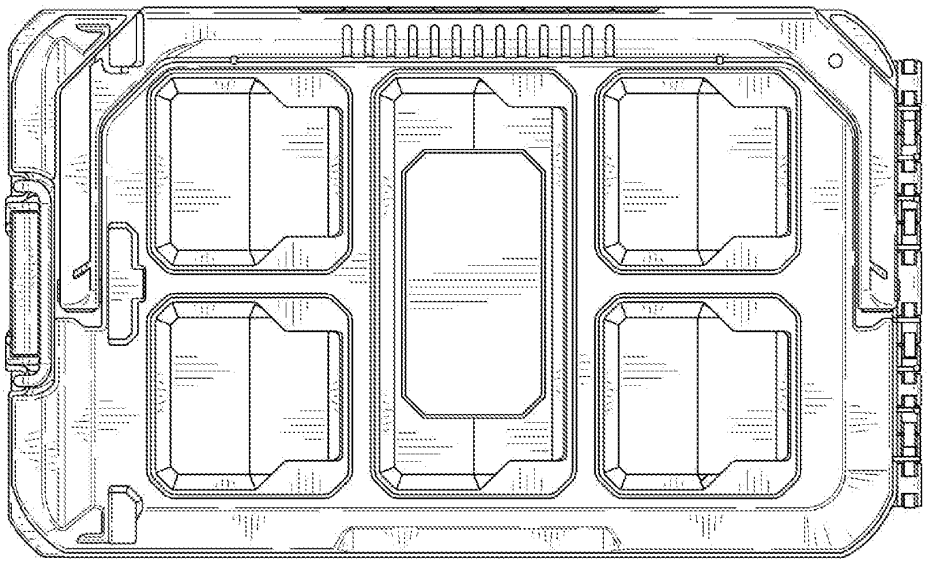
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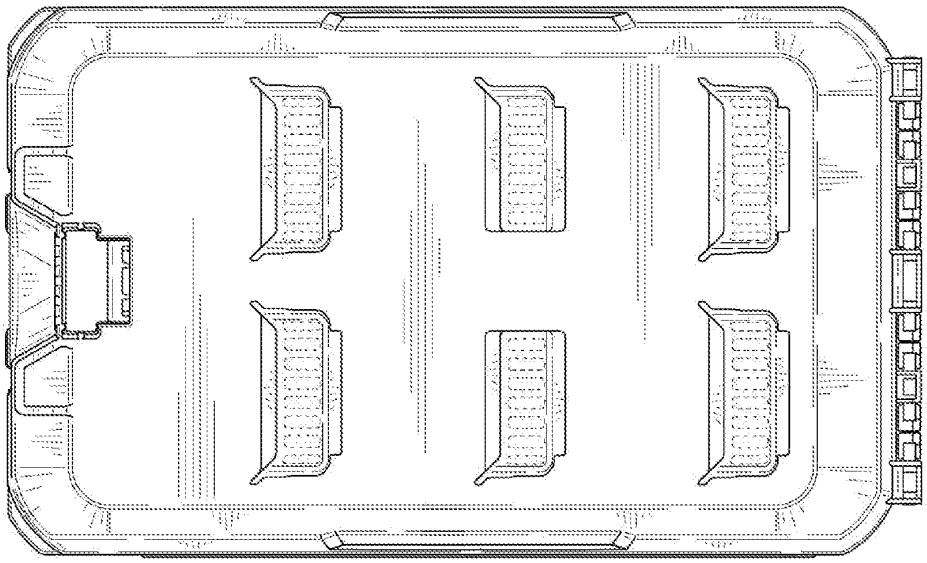
【右側面図】



【平面図】



【底面図】



（５６）【参考文献】意登１６１３０５８　意登１６１３０６１

Electronic Acknowledgement Receipt

EFS ID:	41108188
Application Number:	17064371
International Application Number:	
Confirmation Number:	4794
Title of Invention:	Utility Assembly and Coupling Mechanism
First Named Inventor/Applicant Name:	Yaron Brunner
Customer Number:	142078
Filer:	Derek Howard Campbell/Sarah Sesterhenn-Lee
Filer Authorized By:	Derek Howard Campbell
Attorney Docket Number:	066749-2792
Receipt Date:	12-NOV-2020
Filing Date:	06-OCT-2020
Time Stamp:	17:47:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	066749-2792_Transmittal.pdf	98034 b954cb8fc2394cb31b7c71d2e33105ca6414fd1d	no	2
Warnings:					

Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	066749-2792_SB08.pdf	150146 de66729f77a0a54d59b276c8adb74c9f0c27036b	no	3
Warnings:					
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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Atty. Dkt. No. 066749-2792

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Milwaukee Electric Tool Corporation
Title:	Utility Assembly and Coupling Mechanism
Appl. No.:	17/064,371
Filing Date:	October 6, 2020
Examiner:	WEINERTH, GIDEON R.
Art Unit:	3736
Confirmation Number:	4794

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Submitted herewith on Form PTO/SB/08 is a listing of the documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR § 1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR § 1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 682
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IPR2024-01400

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b)(1), within three (3) months of the filing date of the application.

RELEVANCE OF EACH DOCUMENT

The relevance of the foreign-language document(s) is shown in the figures of foreign-language documents, in the accompanying English language search report/office action from a related foreign application, and/or are described in the English-language abstract and/or machine translation submitted herewith, where available. An English non-machine translation of the foreign-language document is not readily available. However, the absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language document (37 CFR §1.98 and MPEP §609).

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

Although Applicant believes that no fee is required for this Request, the Commissioner is hereby authorized to charge any additional fees which may be required for this Request to Deposit Account No. 18-0882.

Respectfully submitted,

Date November 12, 2020

By /Derek H. Campbell/

Reinhart Boerner Van Deuren s.c.
Customer Number: 142078
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IPR2024-01400

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/064,371	10/06/2020	3736	2300	066749-2792	20	4

CONFIRMATION NO. 4794

CORRECTED FILING RECEIPT

142078
Reinhart (Milwaukee Tool)
ATTN: TRAVIS MCDONNELL, PARALEGAL
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

OC000000121015336

Date Mailed: 10/30/2020

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

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Inventor(s)

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Applicant(s)

Milwaukee Electric Tool Corporation, Brookfield, WI;

Power of Attorney: The patent practitioners associated with Customer Number 142078

Domestic Priority data as claimed by applicant

This application is a CON of 16/752,441 01/24/2020
which is a CON of 16/216,724 12/11/2018 PAT 10583962
which is a CON of 15/826,232 11/29/2017 PAT 10703534
which is a CON of PCT/IL2017/050481 04/30/2017
which claims benefit of 62/459,076 02/15/2017
and claims benefit of 62/330,334 05/02/2016

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: No

Permission to Access Search Results: No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/15/2020

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/064,371**

Projected Publication Date: 01/21/2021

Non-Publication Request: No

Early Publication Request: No

Title

Utility Assembly and Coupling Mechanism

Preliminary Class

220

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor

community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Milwaukee Electric Tool Corporation
Title:	Utility Assembly and Coupling Mechanism
Appl. No.:	17/064,371
Filing Date:	October 6, 2020
Examiner:	To be determined
Art Unit:	3736
Confirmation No:	4794

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CORRECTED FILING RECEIPT

An error has been noted on the Filing Receipt dated October 16, 2020, with respect to the spelling of the Applicant's name. The Applicant's name was incorrectly identified as "Milwaukee Electric Tool Corporatio, Brookfield, WI," with the fourth word being "Corporatio" rather than "Corporation." The correct spelling of the Applicant's name should read as follows:

"Milwaukee Electric Tool Corporation, Brookfield, WI"

Submitted herewith is a copy of the Application Data Sheet (ADS) as originally filed, which includes the correct spelling of the Applicant name, i.e., "Milwaukee Electric Tool Corporation, Brookfield, WI."

Also accompanying this Request is an annotated Filing Receipt showing the requested correction.

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 688
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

REMARKS

A Corrected Filing Receipt showing the correct spelling of inventor's name is respectfully requested.

Although Applicant believes that no fee is required for this Request, the Commissioner is hereby authorized to charge any additional fees which may be required for this Request to Deposit Account No. 18-0882.

Respectfully submitted,

Date October 28, 2020

By /Derek H. Campbell/

Reinhart Boerner Van Deuren s.c.
Customer Number: 142078
Telephone: (414) 298-8374
Facsimile: (414) 298-8097

Derek H. Campbell
Practitioner for Applicant
Registration No. 70,608

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 689
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Annotated Filing Receipt

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/064,371	10/06/2020		2300	066749-2792	20	4

CONFIRMATION NO. 4794

FILING RECEIPT

142078
Reinhart (Milwaukee Tool)
ATTN: TRAVIS MCDONNELL, PARALEGAL
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

OC000000120676749

Date Mailed: 10/16/2020

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

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Inventor(s)

Yaron Brunner, Kibbutz Gvat, ISRAEL;
Grant T. Squiers, Cudahy, WI;
Christopher S. Hoppe, Cedarburg, WI;
Steven W. Hyma, Milwaukee, WI;

Applicant(s)

~~Milwaukee Electric Tool Corporatio, Brookfield, WI;~~ Milwaukee Electric Tool Corporation, Brookfield, WI;

Power of Attorney: The patent practitioners associated with Customer Number 142078

Domestic Priority data as claimed by applicant

This application is a CON of 16/752,441 01/24/2020
which is a CON of 16/216,724 12/11/2018 PAT 10583962
which is a CON of 15/826,232 11/29/2017 PAT 10703534
which is a CON of PCT/IL2017/050481 04/30/2017
which claims benefit of 62/459,076 02/15/2017
and claims benefit of 62/330,334 05/02/2016

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 690
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Permission to Access Application via Priority Document Exchange: No

Permission to Access Search Results: No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/15/2020
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/064,371**
Projected Publication Date: 01/21/2021
Non-Publication Request: No
Early Publication Request: No
Title

Utility Assembly and Coupling Mechanism

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

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NOT GRANTED

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SelectUSA

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technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 693
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Application Data Sheet

Application Information

Application Number:	To Be Determined
Application Type:	Nonprovisional
Subject Matter:	Utility
CD-ROM or CD-R:	None
Computer Readable Form (CRF):	No
Title:	Utility Assembly and Coupling Mechanism
Attorney Docket Number:	066749-2792
Request for Early Publication:	No
Request for Non-Publication:	No
Suggested Drawing Figure:	1A
Total Drawing Sheets:	48
Small Entity:	No
Petition included:	No
Secrecy Order in Parent Appl.:	No

Inventor Information

Status:	Full Capacity
Given Name:	Yaron
Family Name:	Brunner
City of Residence:	Kibbutz Gvat
State or Province of Residence:	
Country of Residence:	IL
Street of mailing address:	Kibbutz Gvat, P.O.B. 248
City of mailing address:	Kibbutz Gvat

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 694
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

State or Province of mailing address:	
Country of mailing address:	IL
Postal or Zip Code of mailing address:	3657900

Status:	Full Capacity
Given Name:	Grant T.
Family Name:	Squiers
City of Residence:	Cudahy
State or Province of Residence:	Wisconsin
Country of Residence:	US
Street of mailing address:	3745 East Cudahy Avenue
City of mailing address:	Cudahy
State or Province of mailing address:	Wisconsin
Country of mailing address:	US
Postal or Zip Code of mailing address:	53110

Status:	Full Capacity
Given Name:	Christopher S.
Family Name:	Hoppe
City of Residence:	Cedarburg
State or Province of Residence:	Wisconsin
Country of Residence:	US
Street of mailing address:	302 Stonefield Drive
City of mailing address:	Cedarburg
State or Province of mailing address:	Wisconsin

Country of mailing address:	US
Postal or Zip Code of mailing address:	53012

Status:	Full Capacity
Given Name:	Steven W.
Family Name:	Hyma
City of Residence:	Milwaukee
State or Province of Residence:	Wisconsin
Country of Residence:	US
Street of mailing address:	1312 East Warnimont Avenue
City of mailing address:	Milwaukee
State or Province of mailing address:	Wisconsin
Country of mailing address:	US
Postal or Zip Code of mailing address:	53207

Correspondence Information

Correspondence Customer Number:	142078
E-Mail address:	ipadmin@reinhartlaw.com

Representative Information

Representative Customer Number:	142078	

Domestic Priority Information

Application:	Continuity Type:	Prior Application No.:	Parent Filing Date:	Prior Application Status:	Patent No.:
This Application	Is a continuation of	16/752,441	January 24, 2020	Pending	N/A
16/752,441	Is a continuation of	16/216,724	December 11, 2018	Patented	10,583,962
16/216,724	Is a continuation of	15/826,232	November 29, 2017	Patented	10,703,534
15/826,232	Is a continuation of	PCT/IL2017/050481	April 30, 2017	Expired	N/A
PCT/IL2017/050481	Claims the benefit under 35 U.S.C. 119(e)	62/459,076	February 15, 2017	Expired	N/A
PCT/IL2017/050481	Claims the benefit under 35 U.S.C. 119(e)	62/330,334	May 2, 2016	Expired	N/A

Foreign Priority Information

Country:	Application number:	Filing Date:	Priority Claimed:

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 697
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Applicant Information

Applicant 1:

[X] Assignee	[ ] Legal Representative under 35 U.S.C. 117	[ ] Person to whom the inventor is obligated to assign	[ ] Person who shows sufficient proprietary interest
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:			
Name of the Deceased or Legally Incapacitated Inventor:			
If the Assignee is an Organization check here [X]			

Organization Name:	Milwaukee Electric Tool Corporation
13135 West Lisbon Road Brookfield, Wisconsin 53005	

Signature:	/Derek H. Campbell/		Date:	October 6, 2020
First Name:	Derek H.	Last Name:	Campbell	
Registration No.:	70,608			

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 698
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
IPR2024-01400

Electronic Acknowledgement Receipt	
EFS ID:	40971734
Application Number:	17064371
International Application Number:	
Confirmation Number:	4794
Title of Invention:	Utility Assembly and Coupling Mechanism
First Named Inventor/Applicant Name:	Yaron Brunner
Customer Number:	142078
Filer:	Derek Howard Campbell/Sarah Sesterhenn-Lee
Filer Authorized By:	Derek Howard Campbell
Attorney Docket Number:	066749-2792
Receipt Date:	28-OCT-2020
Filing Date:	06-OCT-2020
Time Stamp:	15:51:22
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Corrected Filing Receipt	066749-2792_Request_for_Corrected_Filing_Receipt.pdf	80879 c12b3e888532b970a5447b35716483ad53b0190c	no	2

Warnings:

Information:					
2	Miscellaneous Incoming Letter	066749-2792_Annotated_Filing_Receipt.pdf	227677 a06472d1dad810c1dc4db0dc007fa6ad33db3257	no	4
Warnings:					
Information:					
3	Application Data Sheet	066749-2792_ADS.pdf	98134 45a9946809605a1ba090b19a3aa76f3b2007d22b	no	5
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
			Total Files Size (in bytes):	406690	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.
<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.
<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/064,371	10/06/2020	Yaron Brunner	066749-2792	4794

142078 7590 10/23/2020

Reinhart (Milwaukee Tool)
ATTN: TRAVIS MCDONNELL, PARALEGAL
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

EXAMINER	

ART UNIT	PAPER NUMBER
3736	

NOTIFICATION DATE	DELIVERY MODE
10/23/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPAdmin@reinhartlaw.com

PTOL-90A (Rev. 04/07)

Decision Granting Request for Prioritized Examination (Track I)	**Application No.** 17/064,371	**Applicant(s)** Brunner et al.	
	Examiner BRIAN W BROWN	**Art Unit** OPET	**AIA (FITF) Status** Yes

1. THE REQUEST FILED 06 October 2020 IS **GRANTED** .

The above-identified application has met the requirements for prioritized examination

A. ☑ for an original nonprovisional application (Track I).
B. ☐ for an application undergoing continued examination (RCE).

2. **The above-identified application will undergo prioritized examination**. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:

A. filing a **petition for extension of time** to extend the time period for filing a reply;

B. filing an **amendment to amend the application to contain more than four independent claims, more than thirty total claims** , or a multiple dependent claim;

C. filing a **request for continued examination** ;

D. filing a notice of appeal;

E. filing a request for suspension of action;

F. mailing of a notice of allowance;

G. mailing of a final Office action;

H. completion of examination as defined in 37 CFR 41.102; or

I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to BRIAN BROWN at (571)272-5338. In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.

/BRIAN W BROWN/ Petitions Examiner, OPET	

U.S. Patent and Trademark Office
PTO-2298 (Rev. 02-2012)

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/064,371	10/06/2020		2300	066749-2792	20	4

CONFIRMATION NO. 4794

FILING RECEIPT

142078
Reinhart (Milwaukee Tool)
ATTN: TRAVIS MCDONNELL, PARALEGAL
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

OC000000120676749

Date Mailed: 10/16/2020

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Inventor(s)

Yaron Brunner, Kibbutz Gvat, ISRAEL;
Grant T. Squiers, Cudahy, WI;
Christopher S. Hoppe, Cedarburg, WI;
Steven W. Hyma, Milwaukee, WI;

Applicant(s)

Milwaukee Electric Tool Corporatio, Brookfield, WI;

Power of Attorney: The patent practitioners associated with Customer Number 142078

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which is a CON of 16/216,724 12/11/2018 PAT 10583962
which is a CON of 15/826,232 11/29/2017 PAT 10703534
which is a CON of PCT/IL2017/050481 04/30/2017
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Permission to Access Application via Priority Document Exchange: No

Permission to Access Search Results: No

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If Required, Foreign Filing License Granted: 10/15/2020
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/064,371**
Projected Publication Date: 01/21/2021
Non-Publication Request: No
Early Publication Request: No
Title

Utility Assembly and Coupling Mechanism

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative,

this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 17/064,371

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	320
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	700
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	800
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*			OR	x 100 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	4 minus 3 =	* 1				x 480 =	480
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	2300

APPLICATION AS AMENDED - PART II

AMENDMENT A

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

AMENDMENT B

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	1	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	2,042,387	05-26-1936	COBB DAVID F	
	A2	2,430,200	11-04-1947	Wilson Winfred E.	
	A3	2,970,358	02-07-1961	E. C. Elsner	
	A4	3,117,692	01-14-1964	Carpenter et al.	
	A5	3,506,321	04-14-1970	Hampel	
	A6	3,974,898	08-17-1976	Tullis et al.	
	A7	4,168,076	09-18-1979	Johnson	
	A8	5,035,445	07-30-1991	Poulin	
	A9	5,105,947	04-21-1992	Wise, Thomas W.	
	A10	5,240,264	08-31-1993	Williams	
	A11	5,301,829	04-12-1994	Chrisco	
	A12	5,429,260	07-041995	Vollers; Gary L.	
	A13	5,538,213	07-23-1996	Brown Office Systems Inc.	
	A14	5,595,228	01-21-1997	Meisner et al.	
	A15	5,608,603	03-04-1997	Su	
	A16	5,628,443	05-13-1997	Deutsch	
	A17	5,797,617	08-25-1998	Lin Shiou Chang	
	A18	5,951,037	09-14-1999	Hsieh Hung-Ching	
	A19	5,988,473	11-23-1999	Hagan et al.	
	A20	6,050,660	04-18-2000	Gurley	
	A21	6,085,925	07-11-2000	Chung	
	A22	6,109,627	08-29-2000	Sung Hoan Be	
	A23	6,176,559	01-23-2001	Tiramani et al.	
	A24	6,347,847	02-19-2002	Tiramani et al.	
	A25	6,367,631	04-09-2002	Steigerwald	
	A26	6,371,320	04-16-2002	Sagol	
	A27	6,431,580	08-13-2002	Darren J. Kady	
	A28	6,547,347	04-15-2003	Saito; Yoshiyuki	
	A29	6,601,930	08-05-2003	Tiramani et al.	

Examiner Signature		Date Considered	

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**.

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	2	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A30	6,619,772	09-16-2003	Dierbeck	
	A31	6,637,707	10-28-2003	Gates; George D.	
	A32	6,641,013	11-04-2003	Oise	
	A33	6,945,546	09-20-2005	Edward G. Guirlinger	
	A34	6,948,691	09-27-2005	Brock et al.	
	A35	6,983,946	01-10-2006	Sullivan et al.	
	A36	7,044,484	05-16-2006	Wang	
	A37	7,066,475	06-27-2006	Bret E. Barnes	
	A38	7,147,243	12-12-2006	Darren Kady	
	A39	7,263,742	09-04-2007	Guido Valentini	
	A40	7,367,571	05-06-2008	Nichols	
	A41	7,503,569	03-17-2009	Duvigneau	
	A42	7,658,887	02-09-2010	Hovatter	
	A43	7,779,764	08-24-2010	NAIDU et al.	
	A44	7,780,026	08-24-2010	Zuckerman	
	A45	7,841,144	11-30-2010	Pervan; Darko	
	A46	8,028,845	10-04-2011	Himes	
	A47	8,132,819	03-13-2012	Landau; Eitan	
	A48	8,177,463	05-15-2012	Walker; Peter J	
	A49	8,191,910	06-05-2012	Landau et al.	
	A50	8,454,033	06-04-2013	Tsai	
	A51	8,459,495	06-11-2013	Koenig; Andreas	
	A52	8,505,729	08-13-2013	Sosnovsky et al.	
	A53	8,567,796	10-29-2013	Bar-Erez et al.	
	A54	8,677,661	03-25-2014	Michels; Markus	
	A55	8,689,396	04-08-2014	Melvin E. Wolfe	
	A56	8,714,355	05-06-2014	Huang	
	A57	8,813,960	08-26-2014	Fjelland; Douglas J.	
	A58	8,875,888	11-04-2014	Koenig; Andreas	
	A59	8,979,100	03-17-2015	Bensman et al.	
	A60	8,985,922	03-24-2015	Neumann	

Examiner Signature		Date Considered	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	3	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A61	9,132,543	09-15-2015	Bar-Erez; Sharon	
	A62	9,506,489	11-29-2016	Ko; Kenneth H.	
	A63	9,511,491	12-06-2016	Brunner	
	A64	9,566,990	02-14-2017	Bar-Erez; Sharon	
	A65	9,616,562	04-11-2017	Hoppe; Christopher S.	
	A66	9,643,629	05-09-2017	The Stanley Works Israel Ltd.	
	A67	9,701,443	07-11-2017	Wang; Tzu-Chien	
	A68	9,872,562	01-23-2018	Brunner; Yaron	
	A69	10,434,638	10-08-2019	Tsai	
	A70	2002/0000440	01-03-2002	Sagal et al.	
	A71	2002/0171228	11-21-2002	Kady	
	A72	2003/0115715	06-26-2003	Guido Valentini	
	A73	2003/0146589	08-07-2003	Jarko et al.	
	A74	2003/0184034	10-02-2003	Pfeiffer	
	A75	2003/0205877	11-06-2003	Verna et al.	
	A76	2004/0103494	06-03-2004	Valentini	
	A77	2004/0195793	10-07-2004	Sullivan, Hugh C., et al.	
	A78	2004/0206656	10-21-2004	Dubois et al.	
	A79	2005/0062244	03-24-2005	Guirlinger	
	A80	2005/0104308	05-19-2005	Barnes	
	A81	2005/0139745	06-30-2005	Liao, Chi-Cheng	
	A82	2006/0006770	01-12-2006	Valentini	
	A83	2006/0027475	02-09-2006	Gleason et al.	
	A84	2006/0038367	02-23-2006	Ferraro; Frank A.	
	A85	2006/0119060	06-08-2006	Sullivan et al.	
	A86	2006/0186624	08-24-2006	Kady, Darren	
	A87	2006/0254946	11-16-2006	Becklin	
	A88	2007/0068757	03-29-2007	Tan	
	A89	2007/0090616	04-26-2007	Tompkins	
	A90	2007/0145700	06-28-2007	Ambrose et al.	
	A91	2007/0194543	08-23-2007	Duvigneau	

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Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	4	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A92	2008/0104921	05-08-2008	Pervan; Darko	
	A93	2008/0115312	05-22-2008	DiPasquale et al.	
	A94	2008/0121547	05-29-2008	Dur et al.	
	A95	2008/0134607	06-12-2008	Pervan; Darko	
	A96	2008/0169739	07-17-2008	Goldenberg; Ruth	
	A97	2008/0271280	11-06-2008	FUCHS FRANK et al.	
	A98	2008/0277221	11-13-2008	Josefson; Mark L.	
	A99	2008/0308369	12-18-2008	Louis; Robert D.	
	A100	2009/0026901	01-29-2009	Nies, III et al.	
	A101	2009/0071990	03-19-2009	Jardine et al.	
	A102	2009/0145790	06-11-2009	Panosian; Michael Harmik	
	A103	2009/0145866	06-11-2009	Panosian et al.	
	A104	2009/0145913	06-11-2009	Panosian et al.	
	A105	2009/0178946	07-16-2009	Patstone et al.	
	A106	2009/0236482	09-24-2009	SS3 Storage Systems LLC	
	A107	2010/0052276	03-04-2010	Brunner	
	A108	2010/0139566	06-10-2010	Lopuszanski, Michel	
	A109	2010/0147642	06-17-2010	Andochick; Scott E.	
	A110	2010/0219193	09-02-2010	Becklin	
	A111	2011/0073516	03-31-2011	Zelinskiy; Konstantin	
	A112	2011/0139665	06-16-2011	Madsen	
	A113	2011/0155613	06-30-2011	Koenig, Andreas et al.	
	A114	2011/0181008	07-28-2011	BENSMAN;MARK	
	A115	2011/0220531	09-15-2011	Meether et al.	
	A116	2011/174939	07-21-2013	Parts Express International Inc.	
	A117	2012/0160886	06-28-2012	Henny Paul et al.	
	A118	2012/0180250	07-19-2012	KAERCHER GMBH AND CO ALFRED KG	
	A119	2012/0207571	08-16-2012	Scott, Charles Shay	
	A120	2012/0326406	12-27-2012	LIFSHITZ; Omri	
	A121	2013/0024468	01-24-2013	Kocsis, Susan C.	

Examiner Signature		Date Considered	

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	5	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A122	2013/0031731	02-07-2013	KAERCHER GMBH AND CO ALFRED KG	
	A123	2013/0031732	02-07-2013	KAERCHER GMBH AND CO ALFRED KG	
	A124	2013/0068903	03-21-2013	Peerless Ind Inc.	
	A125	2013/0121783	05-16-2013	Kelly; Thomas P.	
	A126	2013/0127129	05-23-2013	Bensman, Mark et al.	
	A127	2013/0154218	06-20-2013	TIILIKAINEN	
	A128	2013/0223971	08-29-2013	Grace IV, Robert W.	
	A129	2013/146551	06-13-2013	Electrolux Home Prod Inc.	
	A130	2014/0076759	03-20-2014	ROEHM et al.	
	A131	2014/0161518	06-12-2014	KO	
	A132	2014/0166516	06-19-2014	Martinez; Mark R.	
	A133	2015/0274362	10-01-2015	CHRISTOPHER et al.	
	A134	2015/0376917	12-31-2015	Brunner	
	A135	2016/0023349	01-28-2016	Milwaukee Electric Tool Corporation	
	A136	2016/0130034	05-12-2016	Kuhls; Timo	
	A137	2016/0144500	05-26-2016	CHEN; KUN-CHEN	
	A138	2016/0168880	06-16-2016	Phelan; Matthew	
	A139	2017/0121056	05-04-2017	Wang; Tzu-Chien	
	A140	2017/0138382	05-18-2017	Ko	
	A141	2017/0165828	06-15-2017	Festool GmbH	
	A142	2017/0166352	06-15-2017	Hoppe; Christopher S.	
	A143	2017/0174392	06-22-2017	De Loynes	
	A144	2017/0217464	08-03-2017	Bar-erez et al.	
	A145	2017/0239808	08-24-2017	Hoppe; Christopher S.	
	A146	2017/0257958	09-07-2017	The Stanley Works Israel Ltd.	
	A147	2017/0266804	09-21-2017	Kinskey	
	A148	2017/0318927	11-09-2017	Krause et al.	
	A149	2017/0349013	12-07-2017	GRONHOLM	
	A150	2018/0044059	02-15-2018	BRUNNER; Yaron	

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Sheet	6	of	12	Attorney Docket Number	066749-2792

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
	A151	2018/0153312	06-07-2018	Buck James et al.	
	A152	2018/0161975	06-14-2018	Brunner; Yaron	
	A153	2018/0220758	08-09-2018	Rothenberger AG	
	A154	2018/0290288	10-11-2018	BRUNNER; Yaron	
	A155	2019/0002004	01-03-2019	BRUNNER; Yaron	
	A156	2019/0031222	01-31-2019	TAKYAR et al.	
	A157	2019/0039781	02-07-2019	Kogel	
	A158	2019/0106244	04-11-2019	Brunner et al.	
	A159	2019/0225371	07-25-2019	Hoppe et al.	
	A160	2020/0055534	02-20-2020	HASSELL	
	A161	2020/0147781	05-14-2020	Squiers et al.	
	A162	2020/0165036	05-28-2020	Squiers et al.	
	A163	D395,533	06-23-1998	Morison et al.	
	A164	D437,669	02-13-2001	BLASON et al.	
	A165	D456,972	05-07-2002	BLASON et al.	
	A166	D525,789	08-01-2006	Hosking	
	A167	D630,851	01-18-2011	Landau et al.	
	A168	D653,832	02-07-2012	Vilkomirski et al.	
	A169	D661,858	06-12-2012	Lifshitz et al.	
	A170	D663,952	07-24-2012	CREVLING et al.	
	A171	D664,354	07-31-2012	CREVLING et al.	
	A172	D668,869	10-16-2012	Yamamoto et al.	
	A173	D674,605	01-22-2013	Vilkomirski et al.	
	A174	D701,696	04-01-2014	Shitrit et al.	
	A175	D738,106	09-08-2015	Shitrit	
	A176	D753,394	04-12-2016	Brunner	
	A177	D753,395	04-12-2016	Brunner	
	A178	D765,974	09-13-2016	Tonelli et al.	
	A179	D770,179	11-01-2016	Menirom	
	A180	D790,221	06-27-2017	Yahav et al.	
	A181	D814,187	04-03-2018	Caglar	

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	A182	D815,831	04-24-2018	Tonelli	
	A183	D816,334	05-01-2018	Brunner	
	A184	D826,510	08-21-2018	Brunner	
	A185	D828,671	09-11-2018	COPE et al.	
	A186	D833,744	11-20-2018	Yahav et al.	
	A187	D837,515	04-08-2019	Shpitzer	
	A188	D871,013	12-24-2019	LIU	
	A189	D895,966	09-15-2020	Brunner et al.	
	A190	D895,967	09-15-2020	Brunner et al.	
	A191	D896,517	09-22-2020	Brunner et al.	
	A192	D896,518	09-22-2020	Brunner et al.	

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS

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FOREIGN PATENT DOCUMENTS

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	A193	CN101068661	11-07-2007	BOSCH GMBH ROBERT		
	A194	CN102137795	07-27-2011	TTS ToolTechnic Systems AG		
	A195	CN102248523	11-23-2011	CHANGHONG HAN et al.		
	A196	CN102469899	05-23-2012	KAERCHER GMBH AND CO KG ALFRED		
	A197	CN102834035	12-19-2012	KAERCHER GMBH AND CO ALFRED KG		
	A198	CN103118578	05-22-2013	KAERCHER GMBH AND CO ALFRED KG		
	A199	CN103659777	03-26-2014	Bosch GMBH Robert		

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	A200	CN200947356	09-12-2007	FU GANG		
	A201	CN204161752	02-18-2015	Meridian International Co Ltd		
	A202	CN2608238	03-31-2004	BAO JIANGANG		
	A203	CN302371147	03-27-2013	吉田攻一郎		
	A204	DE 202015005752	11-21-2016	PLASTON AG		
	A205	DE 202015105053	10-31-2016	AUER PACKAGING GMBH		
	A206	DE102004057870	06-01-2006	BOSCH GMBH ROBERT		
	A207	DE102010003754	10-13-2011	KAERCHER GMBH AND CO ALFRED KG		
	A208	DE102010003756	10-13-2011	KAERCHER GMBH AND CO ALFRED KG		
	A209	DE102012106482	01-23-2014	WAIGEL JOACHIM		
	A210	DE102012220837	05-15-2014	BOSCH GMBH ROBERT		
	A211	DE102015013053	04-13-2017	BURCHIA ROLF		
	A212	DE102015112204	02-16-2017	PERL MICHAEL		
	A213	DE19750543	05-20-1999	FESTO TOOLTECHNIC GMBH AND CO		
	A214	DE202011002617	04-28-2011	Bekuplast Kunststoffverarbeitungs-GmbH		
	A215	DE202014103695	10-30-2014	Metabowerke Gmbh		
	A216	DE20218996	03-06-2003	TTS TOOLTECHNIC SYSTEMS AG		
	A217	DE29708343	07-03-1997	FLIESEN RICHTER GMBH		
	A218	DE3510307	09-25-1986	SPIELHOFF HANS-PETER		
	A219	DE4415638	11-09-1995	Halm		
	A220	DE9313802	12-02-1993	TUNG I ENTERPRISE CO		
	A221	DE402018201520	05-11-2018	Dirk SCHLENZKA		
	A222	EM000705231-0001	04-12-2007	Terry Store-Age S.P.A.		
	A223	EM002419283-0001	03-06-2014	Keter Plastic Ltd.		
	A224	EP0916302	05-19-1999	FESTO TOOLTECHNIC GMBH AND CO		
	A225	EP1321247	06-25-2003	VALENTINI GUIDO		

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	A226	EP1428764	06-16-2004	DUBOIS JEAN-MARC et al.		
	A227	EP1819487	08-22-2007	BOSCH GMBH ROBERT		
	A228	EP2289671	03-02-2011	Stanley Works Israel		
	A229	EP2346741	07-27-2011	MADSEN JENS OLE		
	A230	EP2456341	05-30-2012	KAERCHER GMBH AND CO ALFRED KG		
	A231	EP2555660	02-13-2013	KAERCHER GMBH AND CO ALFRED KG		
	A232	EP2555661	02-13-2013	KAERCHER GMBH AND CO ALFRED KG		
	A233	EP2805799	11-23-2016	FLEISCHMANN BERND et al.		
	A234	EP3141354	03-15-2017	KOCH SIMON et al.		
	A235	GB2047181B	02-02-1983	REUNIS SA ATELIERS		
	A236	GB2110076	06-15-1983	Ostling Bernt et al.		
	A237	GB2330521	04-28-1999	SPOONER PAUL		
	A238	GB2406331	03-30-2005	JEFFRIES JULIAN CLIFFORD		
	A239	GB2413265	10-26-2005	THOMSON BRIAN		
	A240	GB694707	07-22-1953	GEORGE ARTHUR CHARD		
	A241	GB2449934	12-10-2008	Protrend Co Ltd.		
	A242	JP D1180963	08-04-2003	Name not in English		
	A243	JP D1455321	11-12-2012	Name not in English		
	A244	JP D1625407	02-25-2019	Name not in English		
	A245	JP1276744	07-18-2006	Hirofumi Kishimoto		
	A246	JP1477050	08-19-2013	Ryosuke Omachi		
	A247	JP2003194020A	07-09-2003	SUGIMURA ATSUAKI		
	A248	JP2013022972	02-04-2013	IZUMI DOI, HIDEKI NOMA, MASAYUKI NAKANISHI		
	A249	JP2013022976	02-04-2013	DAIFUKU KK		
	A250	JPD1395115	08-16-2010	Toyoharu Senda		
	A251	JPD1395116	08-16-2010	Toyoharu Senda		
	A252	KR 3008066040000	07-22-2015	Woojubon Co. LTD		

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	A253	KR 3008496000000	04-15-2016	Hwang, Hyung Keun		
	A254	KR30-0271616	02-09-2000	Joong Chui Ahm		
	A255	KR30-0320243	06-10-2002	Joung Gu Kang		
	A256	KR3008422360000	03-02-2016	NPC Co., Ltd. HYUNDAI GLOVIS Co., Ltd.		
	A257	KR3008599650000	06-22-2016	NPC Co., Ltd.		
	A258	KR3008812960000	11-15-2016	NPC Co., Ltd.		
	A259	KR3009995990000	03-27-2019	Korea Container Pool Co, Ltd		
	A260	TW 206875	05-21-1993	Name not in English		
	A261	TW D192092	08-11-2018	Name not in English		
	A262	TW135074	06-01-2010	Yi Hua Wu		
	A263	TW168686	07-01-2015	Kang Delun Business Co., Ltd.		
	A264	TW174412	03-21-2016	Lee Hsin Chang		
	A265	TWI324578	05-11-2010	NAIDU VISHNU et al.		
	A266	WO07121745	11-01-2007	MADSEN JENS OLE		
	A267	WO07121746	11-01-2007	MADSEN JENS OLE		
	A268	WO09140965	11-26-2009	MADSEN JENS OLE		
	A269	WO11009480	01-27-2011	RICKLEFSEN DIRK et al.		
	A270	WO13026084	02-28-2013	VAN DER LINDE et al.		
	A271	WO14125488	08-21-2014	BRUNNER YARON		
	A272	WO17212840	12-14-2017	FURUTA YOSHIHISA		
	A273	WO2005/045886	05-19-2005	Brooks Automation, Inc.		
	A274	WO2007121745A1	11-01-2007	MADSEN JENS OLE		
	A275	WO2007/121746	11-01-2007	J.O. MADSEN APS; MADSEN JENS OLE		
	A276	WO2009/140965	11-26-2009	J.O. MADSEN APS; MADSEN JENS OLE		
	A277	WO2011/009480	01-27-2011	HENSEL MAIC; HESS STEFAN; KAERCHER GMBH & CO KG		

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	11	of	12	Attorney Docket Number	066749-2792

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	A278	WO2013/026084	02-28-2013	CONNOR PAUL FRANCIS; DEMAIN TECHNOLOGY PTY LTD.		
	A279	WO2014/125488	08-21-2014	KETER PLASTIC LTD		
	A280	WO2016142935	09-15-2016	BRUNNER, Yaron et al.		
	A281	WO2017028845	02-23-2017	ROTHENBERGER AG		
	A282	WO2017191628	11-09-2017	BRUNNER YARON		
	A283	WO2017/212840	12-14-2017	GENESIS CO., LTD.		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	A284	"Blitz Box – Portable Storage Box / Shelf," The Green Head Finds Cool New Stuff, https://www.thegreenhead.com/2013/03/blitz-box-portable-storage-box-shelf.php, Per Wayback, website dates back to February 15, 2015, 5 pages.	
	A285	"BluCave Universal Storage System," BATAVIA Tools to Build, https://batavia.eu/blucave-storage-system/, believed to be available at least as early as November 29, 2017, 5 pages.	
	A286	"Dewalt TSTAK Carrier Trolley," ITS, https://www.its.co.uk/pd/171229-Dewalt-TSTAK-Carrier-Trolley-_DEW171229.htm, Per Wayback, website dates back to May 2, 2015, 2 pages.	
	A287	"DeWalt TSTAK Vac Rack (Suits DW DWV902M & DWV900L) DWV9500-XJ," Get Tools Direct, https://www.gettoolsdirect.com.au/dewalt-tstak-vac-rack-suits-dwv902m-and-dwv900l-dwv9500-xj.html, believed to be available at least as early as November 29, 2017, 4 pages.	
	A288	"Hopkins FloTool 91002 Rhino Box with Mount," Amazon.com, https://www.amazon.com/exec/obidos/ASIN/B003K15F3I/20140000-20, believed to be available at least as early as November 29, 2017, 7 pages.	
	A289	"Tool Skool, TSTAK Phase 2 Upgrades | TSTAK Carts – First Look – Tool Skool," YouTube, September 7, 2013, https://www.youtube.com/watch?v=jb06y6J1dr4&feature=youtu.be&t=197, 1 page.	
	A290	Batavia Gmbh, BluCave Storage System, https://protect-us.mimecast.com/s/5XIGCR6KypcgJnIKi9EDoim?domain=batavia.eu, believed to be available at least as early as November 29, 2017, 7 pages.	
	A291	BluCave Video, https://www.youtube.com/watch?v=Sw7fQQPwoOtY&feature=youtu.be&t=32, believed to be available at least as early as November 29, 2017.	

Examiner Signature		Date Considered	

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Substitute for form 1449/PTO				***Complete if Known***	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				**Application Number**	To be determined
				Filing Date	October 6, 2020
Date Submitted: October 6, 2020				**First Named Inventor**	Yaron Brunner
				Art Unit	To be determined
(use as many sheets as necessary)				Examiner Name	To be determined
Sheet	12	of	12	Attorney Docket Number	066749-2792

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]
	A292	International Search Report and Written Opinion for International Application No. PCT/IL2019/050689, dated August 23, 2019, 21 pages.	
	A293	International Search Report and Written Opinion for International Application No. PCT/US2018/033161, dated August 6, 2018, 14 pages.	
	A294	International Search Report and Written Opinion for International Application No. PCT/US2018/044629, dated January 9, 2019, 22 pages.	
	A295	International Search Report and Written Opinion for International Application No. PCT/US2019/014940, dated July 26, 2019, 7 pages.	
	A296	International Search Report and Written Opinion for International Application No. PCT/IL2020/050433, dated June 21, 2020, 14 pages	
	A297	Sortimo Logistix, "Mobile Sortimente", brochure, believed to be available at least as early as November 29, 2017, 17 pages.	
	A298	STUART, “Ryobi ToolBlox Tool Cabinet System!,” TOOLGUYD, September 18, 2014, https://toolguyd.com/ryobi-toolblox-cabinets/, 23 pages.	
	A299	STUART, “Sys-Cart Base, a Systainer Mounting Platform,” TOOLGUYD, July 28, 2014, https://toolguyd.com/systainer-sys-cart-mounting-base/, 11 pages.	
	A300	VERTAK, https://www.alibaba.com/product-detail/Vertak-global-patented-multi-funciton-portable_60217794260.html, believed to be available at least as early as November 29, 2017.	
	A301	Non-Final Rejection issued April 12, 2018, in United States Application No. 15/826,201. (16 Pages) (Docket No. J699501JS01 446373-419).	

Examiner Signature		Date Considered	

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Electronic Patent Application Fee Transmittal	
Application Number:	
Filing Date:	
Title of Invention:	Utility Assembly and Coupling Mechanism
First Named Inventor/Applicant Name:	Yaron Brunner
Filer:	Derek Howard Campbell/Andrea Dietzel
Attorney Docket Number:	066749-2792
Filed as Large Entity	
Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)	

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	320	320
UTILITY SEARCH FEE	1111	1	700	700
UTILITY EXAMINATION FEE	1311	1	800	800
REQUEST FOR PRIORITIZED EXAMINATION	1817	1	4200	4200
Pages:				
Claims:				
INDEPENDENT CLAIMS IN EXCESS OF 3	1201	1	480	480
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**6640**

Electronic Acknowledgement Receipt	
EFS ID:	40773658
Application Number:	17064371
International Application Number:	
Confirmation Number:	4794
Title of Invention:	Utility Assembly and Coupling Mechanism
First Named Inventor/Applicant Name:	Yaron Brunner
Customer Number:	142078
Filer:	Derek Howard Campbell/Andrea Dietzel
Filer Authorized By:	Derek Howard Campbell
Attorney Docket Number:	066749-2792
Receipt Date:	06-OCT-2020
Filing Date:	
Time Stamp:	17:53:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$6640
RAM confirmation Number	E202006H53579628
Deposit Account	180882
Authorized User	Andrea Dietzel
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	TrackOne Request	066749-2792_Track_1_Request.pdf	126434 3ef81582c8070101c3b80b7e5b7b7753cfb9a55b	no	2
Warnings:					
Information:					
2	Transmittal of New Application	066749-2792_App_Transmittal.pdf	64955 b6e9914c28579981c5b2cac51a72e2d2cbce0a8b	no	2
Warnings:					
Information:					
3	Application Data Sheet	066749-2792_ADS.pdf	83432 ecf132ad7ec1f742f17365d95e4c632b9f1f5612	no	5
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
4		066749-2792_Application.pdf	233033 abab92e2332aec272c176b20f377fe1ef42817ee	yes	43

Multipart Description/PDF files in .zip description

Document Description	Start	End
Specification	1	37
Claims	38	42
Abstract	43	43

Warnings:	
Information:	

5	Drawings-only black and white line drawings	066749-2792_Drawings.pdf	3578400 747996f06accca21bfda405e90022d2e7e1b9cbb	no	48
Warnings:					
Information:					
6	Oath or Declaration filed	066749-2792_Declarations.pdf	521866 3fa8b27c3e235f0b2dc3109a092e860c8c8c1702	no	7
Warnings:					
Information:					
7	Power of Attorney	066749-2792_PoA.pdf	216509 9b1ea6e807094db0bac85e3f6de5c7a97270c277	no	2
Warnings:					
Information:					
8	Transmittal Letter	066749-2792_IDS_Transmitta.pdf	82100 02717315a664a605278dca5e701e083a22f0fd2c	no	3
Warnings:					
Information:					
9	Information Disclosure Statement (IDS) Form (SB08)	066749-2792_SB08.pdf	231092 b5cebc6e9b86c4988f55731a44c9946a1ee170d6	no	12
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
10	Fee Worksheet (SB06)	fee-info.pdf	42164 269ffa5d5f63ca753aa2d711a8629f5cae15fed8	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	5179985		

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New Applications Under 35 U.S.C. 111

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Doc Code: TRACK1.REQ
Document Description: TrackOne Request

PTO/AIA/424 (04-14)

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)

First Named Inventor:	Yaron Brunner	Nonprovisional Application Number (if known):	To be determined
Title of Invention:	Utility Assembly and Coupling Mechanism		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently $0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.

2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.

3. The applicable box is checked below:

I. ☑ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.

---OR---

(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.

ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, **or** the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

i. A request for continued examination has been filed with, or prior to, this form.
ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature /Derek H. Campbell/	Date October 6, 2020
Name (Print/Typed) Derek H. Campbell	Practitioner Registration Number 70,608

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.**

☑ *Total of 1 forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
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Document Description: Power of Attorney

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Application Number	To be determined
Filing Date	October 6, 2020
First Named Inventor	Yaron Brunner
Title	Utility Assembly and Coupling Mechanism
Art Unit	To be determined
Examiner Name	To be determined
Attorney Docket Number	066749-2792

SIGNATURE of Applicant or Patent Practitioner

Signature	/Derek H. Campbell/	Date (Optional)	October 6, 2020
Name	Derek H. Campbell	Registration Number	70,608
Title (if Applicant is a juristic entity)	Attorney for Applicant		
Applicant Name (if Applicant is a juristic entity)	Milwaukee Electric Tool Corporation		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ *Total of 1 forms are submitted.

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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

■ Practitioners associated with Customer Number: 142078

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

■ The address associated with Customer Number: 142078

OR

☐	Firm or Individual Name		
	Address		
	City	State	Zip
	Country		
	Telephone	Email	

Assignee Name and Address: Milwaukee Electric Tool Corporation
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Brookfield, Wisconsin 53002

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	TY	Date	9-6-16
Name	Ty Staviski	Telephone	262-781-3600
Title	Vice President, Secretary and Treasurere		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Atty. Dkt. No. 066749-2792

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Milwaukee Electric Tool Corporation
Title:	Utility Assembly and Coupling Mechanism
Appl. No.:	To Be Determined
Filing Date:	October 6, 2020
Examiner:	To Be Determined
Art Unit:	To Be Determined
Confirmation Number:	To Be Determined

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Submitted herewith on Form PTO/SB/08 is a listing of the documents cited by or submitted to the United States Patent & Trademark Office ("USPTO") in parent application Serial No. 16/752,441, filed January 24, 2020. As provided in 37 CFR §1.98(d), copies of documents previously cited in the above-identified patent application are not being provided since they were previously submitted to the USPTO in the above-identified patent application. Otherwise, copies of each newly cited non-U.S. patent document (if any) and each newly cited non-patent document (if any) are being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR

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§1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b)(1), within three (3) months of the filing date of the application.

RELEVANCE OF EACH DOCUMENT

The relevance of the foreign-language document is shown in the figures of the foreign-language documents and/or are described in the English-language abstract submitted in the parent application, where available. An English non-machine translation of the foreign-language document is not readily available. However, the absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language document (37 CFR §1.98 and MPEP §609).

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

Although Applicant believes that no fee is required for this Request, the Commissioner is hereby authorized to charge any additional fees which may be required for this Request to Deposit Account No. 18-0882.

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Respectfully submitted,

Date October 6, 2020

By /Derek H. Campbell/

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IPR2024-01400

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Milwaukee Electric Tool Corporation

Title: Utility Assembly and Coupling Mechanism

Prior Appl. No.: 16/752,441
Prior Appl. Filing Date: January 24, 2020

Examiner: To be determined

Art Unit: To be determined

CONTINUING PATENT APPLICATION TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Transmitted herewith for filing under 37 C.F.R. § 1.53(b) is a:

[X] Continuation [ ] Division [ ] Continuation-In-Part (CIP)

of the above-identified copending prior application in which no patenting, abandonment, or termination of proceedings has occurred. Priority to the above-identified prior application is hereby claimed under 35 U.S.C. § 120 for this continuing application. The entire disclosure of the above-identified prior application is considered as being part of the disclosure of the accompanying continuing application and is hereby incorporated by reference therein in its entirety.

Enclosed are:

[**X**] Application Data Sheet (37 CFR 1.76)

[**X**] Cover Page, Description, Claims and Abstract

[**X**] Formal drawings

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[**X**] Copy of Inventor Declaration for parent Application No. 16/752,441, filed January 24, 2020

[**X**] Power of Attorney from Assignee/Applicant

[**X**] Information Disclosure Statement

[**X**] Form PTO/SB/08

[**X**] Request for Prioritized Examination under 37 CFR 1.102(e)

The requisite fees are being charged to Deposit Account No. 18-0882.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 18-0882.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

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Application Data Sheet

Application Information

Application Number:	To Be Determined
Application Type:	Nonprovisional
Subject Matter:	Utility
CD-ROM or CD-R:	None
Computer Readable Form (CRF):	No
Title:	Utility Assembly and Coupling Mechanism
Attorney Docket Number:	066749-2792
Request for Early Publication:	No
Request for Non-Publication:	No
Suggested Drawing Figure:	1A
Total Drawing Sheets:	48
Small Entity:	No
Petition included:	No
Secrecy Order in Parent Appl.:	No

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Representative Information

Representative Customer Number:	142078	

Domestic Priority Information

Application:	Continuity Type:	Prior Application No.:	Parent Filing Date:	Prior Application Status:	Patent No.:
This Application	Is a continuation of	16/752,441	January 24, 2020	Pending	N/A
16/752,441	Is a continuation of	16/216,724	December 11, 2018	Patented	10,583,962
16/216,724	Is a continuation of	15/826,232	November 29, 2017	Patented	10,703,534
15/826,232	Is a continuation of	PCT/IL2017/050481	April 30, 2017	Expired	N/A
PCT/IL2017/050481	Claims the benefit under 35 U.S.C. 119(e)	62/459,076	February 15, 2017	Expired	N/A
PCT/IL2017/050481	Claims the benefit under 35 U.S.C. 119(e)	62/330,334	May 2, 2016	Expired	N/A

Foreign Priority Information

Country:	Application number:	Filing Date:	Priority Claimed:

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

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☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Applicant Information

Applicant 1:

[X] Assignee	[ ] Legal Representative under 35 U.S.C. 117	[ ] Person to whom the inventor is obligated to assign	[ ] Person who shows sufficient proprietary interest
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:			
Name of the Deceased or Legally Incapacitated Inventor:			
If the Assignee is an Organization check here [X]			

Organization Name:	Milwaukee Electric Tool Corporation
13135 West Lisbon Road Brookfield, Wisconsin 53005	

Signature:	/Derek H. Campbell/		Date:	October 6, 2020
First Name:	Derek H.	Last Name:	Campbell	
Registration No.:	70,608			

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U.S. PATENT APPLICATION

for

UTILITY ASSEMBLY AND COUPLING MECHANISM

Inventors: Yaron Brunner
Grant T. Squiers
Christopher S. Hoppe
Steven W. Hyma

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UTILITY ASSEMBLY AND COUPLING MECHANISM

CROSS-REFERENCE TO RELATED PATENT APPLICATION

[0001] This application is a continuation of U.S. Application No. 16/752,441, filed January 24, 2020, which is a continuation of U.S. Application No. 16/216,724, filed December 11, 2018, now U.S. Patent No. 10,583,962, which is a continuation of U.S. Application No. 15/826,232, filed November 29, 2017, now U.S. Patent No. 10,703,534, which is a continuation of International Application No. PCT/IL2017/050481, filed April 30, 2017, which claims priority to U.S. Provisional Application No. 62/459,076, filed February 15, 2017 and to U.S. Provisional Application No. 62/330,334, filed May 2, 2016, each of which are incorporated herein by reference in their entireties.

TECHNOLOGICAL FIELD

[0002] The present disclosure is directed to a container assembly and more specifically to a utility assembly comprising two or more detachably attachable utility modules. The disclosure is further concerned with a coupling mechanism facilitating detachably attaching the utility modules to one another.

[0003] The term 'utility module' is used hereinafter in its broad meaning and is meant to denote a variety of articles such as, storage containers, travel luggage, tool boxes, organizers, compacted work benches, cable storage, tools (e.g. hand tools, power generators and power sources), communication modules, carrying platforms, locomotion platforms, etc., of any shape and size, and wherein any utility module can be detachably attached to any other utility module.

[0004] The term 'utility assembly' as used herein denotes any set of utility modules configured for articulation to one another, either as a stationary unit or locomotive.

GENERAL DESCRIPTION

[0005] A first aspect of the disclosure concerns a coupling mechanism configured for readily detachably attaching any first article to any second article, wherein any first article and any second article can be any utility module.

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[0006] The coupling mechanism comprises a male coupler at a face of one of the first utility module and the second utility module, and a female coupler at a face of the other one of the first utility module and the second utility module, said female coupler has a depressed locking location configured with at least one locking rib extending above a depressed surface and along a sliding path, and having an open edge facing in a first sense; said male coupler has a projecting locking location disposed in register with said depressed locking location and configured with at least one locking tongue extending along said engaging sliding path at a second sense, opposite to said first sense, and configured for arresting engagement at a space between said locking rib and depressed surface, the coupling mechanism further comprises at least one locking member for arresting the first utility module with respect to said second utility module and preventing sliding displacement along said sliding path.

[0007] The arrangement is such that at a locked position of a utility assembly the at least one locking tongue of the male coupler engages below said at least one locking rib of the female coupler and the at least one locking member is engaged, thus preventing any respective displacement between the first utility module and the second utility module, and retaining the coupling mechanism at an engaged and locked position.

[0008] The term 'first utility module' as used herein denotes any utility module bearing at least one second utility module over a first surface thereof. The second utility module of a utility assembly may comprise three or more stages of utility modules, and functions as first utility module with respect to a third stage utility module mounted thereover and serving in turn as a second utility module.

[0009] According to certain embodiments, one or more female couplers are configured at the top face of the first utility module, and one or more male couplers are configured at the bottom face of the second utility module

[0010] The disclosed subject-matter is directed to a utility module configured with at least one of a male coupling mechanism and a female coupling mechanism of the disclosure, a module assembly comprising one or more utility modules of the aforementioned type and a set of utility modules of the aforementioned type.

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[0011] According to a configuration of the first aspect, there is provide a utility assembly comprising at least a first utility module and at least a second utility module, and comprising a coupling mechanism configured between the first utility module and the second utility module; said coupling mechanism comprising at one of a top face of the first utility module and a bottom face of the second utility module one or more depressed locking locations each configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises one or more projecting portions each configured with a locking tongue disposed in register with said one or more depressed locking locations, and at least one locking latch disposed in register with said at least one locking latch arresting location.

[0012] The arrangement is such that, at a locked position, the bottom face of the second utility module at least partially rests over the top face of the first utility module, and the one or more projecting tongues are arrested by the corresponding one or more locking ribs, and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, thereby preventing sliding displacement between the first utility module and the second utility module, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

[0013] Locking engagement between the second utility module and the first utility module is obtained when the one or more depressed locking locations and the one or more projecting portions are disposed behind one another (though not necessarily aligned).

[0014] According to a particular configuration of the coupling mechanism, the one or more depressed locking locations and the one or more locking latch arresting locations are configured at the top face of the first utility module, and the one or more projecting portions and the at least one locking latch are configured at the bottom face of the second utility module. According to this configuration, locking between the first utility module and the second utility module is obtained by positioning the second utility module over the second utility module such that one or more locking tongues of the projecting portions engages with one or more respective locking ribs of the depressed locking locations, and wherein the locking latch interlocks with the respective locking latch arresting location.

[0015] The arrangement being such that the attaching engagement between the second utility module and the first utility module takes place when the one or more locking tongues and the corresponding one or more respective locking ribs are engaged, thereby preventing vertical separation between the utility modules (i.e. preventing lifting of the second utility module of the first utility module), and further when the locking latch is arrested by the respective locking latch arresting location, thereby preventing sliding displacement of the utility modules one with respect to the other (i.e. sliding displacement of the second module over the first module).

[0016] Disengaging the second utility module from the first utility module can be facilitated only after disengaging the locking latch from said locking latch arresting location.

[0017] According to a second aspect of the disclosure there is disclosed a coupling mechanism for a utility assembly comprising at least a first utility module and at least a second utility module, said coupling mechanism is configured between the first utility module and the second utility module and comprises at one of a top face of the first utility module and a bottom face of the second utility module with at least one depressed locking location configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises at least one projecting portion with a locking tongue disposed in register with said at least one depressed locking location, and at least one locking latch disposed in register with said at least one locking latch arresting location; and wherein at a locked position the bottom face at least partially rests over the top face, and the at least one projecting tongue is arrested by the corresponding at least one locking rib and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

[0018] Engaging the first and second utility modules into the locked position is provided by sliding the second utility module with respect to the first utility module along a sliding path defined by at least one of said at least one locking rib and said at least one locking tongue.

[0019] According to one particular configuration the at least one locking rib extends substantially parallel to the sliding path and according to another configuration the at least one

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locking rib extends substantially perpendicular and intersects the sliding path. A third aspect of the present disclosure is directed to a utility module being a mobile carrier unit and comprising at least one carrier engagement surface, compatible for interlocking engagement in a detachable manner with a first engagement surface of a utility module.

[0020] The term carrier unit as used herein denotes any kind of propelled cart configured for detachably attaching and carrying load. The carrier unit may be a hand cart, a mobile tool cart, a mobile workshop, traveling luggage cart, a trolley, etc.

[0021] With particular reference to the third aspect, the carrier engagement surface can be larger than the utility module's first engagement surface corresponding with it. In this case, several utility modules may be interlocked simultaneously upon one carrier unit. According to one configuration there is disclosed a carrier unit comprising a manipulating arrangement, a locomotion system, and an engagement surface comprising one or more engaging elements. The carrier unit is designated for detachable interlocking engagement with one or more utility modules, each comprising a first engagement surface configured with one or more first engaging elements compatible for detachable interlocking engagement with the carrier engaging elements.

[0022] According to yet configuration there is disclosed an assembly comprising a carrier unit comprising an engagement surface comprising one or more engaging elements, and at least one utility module configured with at least one first engagement surface comprising one or more first engaging elements compatible for detachable interlocking engagement with the carrier unit's engaging elements.

[0023] According to a modification of this aspect, there is also provided a container unit comprising a top member configured with a second engagement surface of the utility module, said top member, according to one example constitutes a cover of the utility module.

[0024] The arrangement is such that a container unit can be readily and easily applied over and interlockingly articulated to a carrier unit, or over a utility module configured with a second engagement surface mimicking the first engagement surface second engagement surface mimicking the first engagement surface of the carrier unit.

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[0025] Engagement between the carrier unit and the container, and further between two containers, is facilitated by any locking mechanism of the disclosure hereinabove and hereinafter.

[0026] According to a specific example, there is a latching mechanism, wherein the first engaging elements of the carrier unit are configured for interlocking engagement with engaging elements of the mating surface of the respective utility module. The latching mechanism may assume various configurations, e.g. male-female couplings, dovetail couplings, and the like. The arrangement being such that only a minor displacement is required in order to lockingly mount, and respectively detach, a utility module over the carrier unit.

[0027] According to one specific configuration, the detachable interlocking engagement mechanism between the carrier engaging elements and the utility module's first engaging elements is a dovetail engagement mechanism, comprising laterally projecting shoulders configured on one of the carrier engagement surfaces and the first engagement surface of a utility module, and a shoulder receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said laterally projecting shoulders are configured for sliding engagement with said shoulder receiving recess.

[0028] According to a particular configuration, one or both of the carrier engagement surfaces and the first engagement surface of a respective utility module are configured with depressions, each accommodating respective laterally projecting locking shoulders. Said dovetail engagement mechanism members constitute said engaging elements, wherein said carrier engaging elements comprise one of said dovetail engagement members, while the utility module's first engaging element comprises the respective said dovetail engagement member.

[0029] According to another configuration, the detachable interlocking engagement mechanism between the carrier engaging elements and the utility module's first engaging elements is an undercut engagement mechanism, comprising lateral projections configured on one of the carrier engagement surfaces and the first engagement surface of a container unit, and a receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said lateral projections are configured for engagement with said receiving recess.

[0030] Interlocking engagement of the utility module and the carrier unit takes place by placing the first engagement surface of a utility module over the carrier engagement surface, such that the utility module's first engaging elements are disposed shifted over the respective carrier engaging elements of the carrier unit, and are then slidingly shifted to obtain sliding interlocking engagement therebetween.

[0031] The detachable interlocking engagement mechanism may further comprise a locking mechanism configured for preventing unintentional detaching of the slidingly engaging elements once they are fully interlocked, i.e. to prevent detaching of the utility module from the carrier unit or from another utility module.

[0032] According to one configuration, the locking mechanism, comprises a locking pin that is configured for snapingly protruding from one of the engagement surfaces into a designated nook on the other engagement surface. This prevents the engaging surfaces from sliding relatively to each other, and by that it prevents said engaging elements from being slidingly separated once interlocked.

[0033] According to one configuration, the carrier engagement surface of the carrier unit constitutes a top wall of the carrier unit, when the carrier unit is balanced horizontally to the ground, and wherein the utility module's first engagement surface constitutes a bottom wall of the container unit, when the utility module is balanced horizontally to the ground. The utility module can further comprise a second engagement surface constituting its top wall, or a cover, when the utility module is balanced horizontally to the ground. The second engagement surface of the utility module simulates the carrier engagement surface as it is compatible for engaging with another utility module's first engagement surface.

[0034] Any one or more of the following features, designs and configurations, can be implemented in a utility module, a utility assembly, locking mechanism, and the carrier unit and assembly according to the present disclosure, individually or in various combinations thereof:

[0035] A single locking rib can extend at rear end of a depressed locking location (i.e. the female coupler may comprise a single locking rib) and substantially perpendicular to the sliding path;

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[0036] Two locking ribs can extend at side edges of a depressed locking location (i.e. the female coupler may comprise two locking ribs) and disposed substantially parallel to the sliding path;

[0037] Two locking ribs can each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path;

[0038] The utility assembly can be modular wherein a top face of a first utility module can interlock with a bottom face of a second utility module disposed thereover in a substantially fully overlapping relation, or with a bottom face of at least one second utility module only partially overlapping therewith;

[0039] A second utility module overlapping a significant portion of a first utility module can be configured with a single release latch for displacing several locking latches articulated therewith;

[0040] Two or more second utility modules can be mounted over a first utility module, each being independently detachable attachable over the first utility module;

[0041] The at least one second utility module is configured for snap-type locking over the first utility module;

[0042] A release latch for displacing the locking latch into disengagement from the locking latch arresting location can be disposed at a front face of the respective second utility module;

[0043] The at least one locking latch and the at least one locking latch arresting location can be disposed at a front portion of the respective utility modules;

[0044] At least one of the first utility module and the second utility module are configured with a gliding surface facilitating displacement and positioning the respective second utility module at the locking position with respect to the first utility module;

[0045] The gliding surface reduces tolerances between the projecting portion and the depressed locking location receiving same;

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[0046] One or both of the locking tongue and locking rib can be configured with a slanting surface at corresponding orientation, along the sliding path, for reducing or substantially elimination tolerance therebetween;

[0047] One or both of a front edge of the projecting portion and a corresponding front edge of the depressed locking location can be slanted for gliding positioning of the second utility module into true locking position over the first utility module;

[0048] The locking latch can be configured for displacement in a direction substantially normal to a respective face of a utility module;

[0049] The locking latch can be spring biased and configured for normally projecting from a face of the respective first or second utility module;

[0050] The locking latch can be manipulable to be opened through an opening configured at a front wall of the respective utility module;

[0051] Corners of the utility modules can be reinforced;

[0052] One or more of the utility modules can be a container module, and the utility assembly can be a container assembly/tool caddy;

[0053] The container module can be compartmented and can be configured with sub-containers and sub-compartments;

[0054] The top face of the container module can be configured as a lid or as a functional component of the container module;

[0055] A lid of a second container can be opened also when articulated and locked in position over a first container;

[0056] A lid of a first container can be opened also when a second container is articulated and locked in position thereabove;

[0057] At least one of the container modules can be a locomoting container and can be configured with an arrangement for locomoting said container module. Where the locomoting

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container is attached to other container modules it can facilitate for locomoting the utility assembly;

[0058] The container modules can be configured with carrying arrangement disposed at any one or more of its faces. According to a particular configuration, a front face of the container modules is configured with a carrying handle and according to another configuration side faces of the container modules can be configured with a carrying handle;

[0059] Examples of utility modules can be any one or more of a cooler box, a workpiece grip, a power supply (e.g. power bank, generator), hand tools, power tools, a locomotive platform (e.g. a work dolly), powered or not, a tactical unit (e.g. military gear, scientific equipment, communications equipment, personal gear, outdoor gear, etc.);

[0060] A tool caddy can be configured with a carrying handle (e.g. telescopic);

[0061] A utility module can be a soft-shell container with at least a rigid face portion configured with a male/female coupler;

[0062] The utility module can be an interface coupling module, i.e. functions only as a coupling interface;

[0063] The interface coupling module can be attached to a surface of any element or object and by different arrangements, fixedly or detachably;

[0064] The interface coupling module can be a cargo interface module for a utility vehicle, so as to attach one or more utility modules to the vehicle;

[0065] The cargo interface module can be a bed cargo module, a roof rack module, etc.;

[0066] The interface coupling module can be a surface mount for attaching utility modules, e.g. a floor mount, wall mount, wall rack, etc.;

[0067] The interface coupling module can be a tool mount/rack;

[0068] The interface coupling module can be belt mount for mounting of utility modules (e.g. a hand tool) to a workers belt;

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[0069] The interface coupling module can be an interface mount module for coupling two utility modules to one another, e.g. for articulating two utility modules, both configured with a similar male coupler or a female coupler, and wherein the interface mount module is configured at both faces with another of male coupler or a female coupler;

[0070] The interface coupling module can be a back pack carrying module, for facilitating attachment and carrying of utility modules;

[0071] A top face of a utility module can be configured with a carrying handle, said carrying handle displaceable between a stowed position and a carrying position, wherein at the stowed position said carrying handle at least partially extends within a niche and does not to interfere with the coupling mechanism;

[0072] The carrier unit may include one or more auxiliary engagement surfaces positioned on an exterior face of the carrier unit. For example, an auxiliary engagement surface can be configured at a bottom face of the carrier unit;

[0073] The carrier unit may include a second engagement surface simulating/mimicking the first engagement surface of the utility module;

[0074] A utility module may be configured with one or more auxiliary first and second engagement surfaces;

[0075] The carrier engagement surface may be a connectivity platform detachably attached to the exterior surface of the carrier unit, facilitating a cart unit or a carrier unit according to the present disclosure;

[0076] One or both of the utility module's first and second engagement surfaces may be detachably attached to an exterior surface of the utility module;

[0077] The carrier engagement surface and the utility module's first engagement surface may be like elements;

[0078] The utility module's first and second engagement surfaces may be like elements;

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[0079] The carrier unit's engaging elements and the utility module's first engaging elements may be similar elements;

[0080] One engagement surface may include several engaging elements and one locking mechanism;

[0081] The coupling mechanism is configured for spontaneous displacement into locking engagement within a locking receptacle, wherein manual interference is required only for unlocking the locking mechanism and detaching a utility module from a respective utility module or carrier unit;

[0082] The coupling mechanism can be a spring biased locking pin, normally projecting from a respective engagement surface;

[0083] One or both of the carrier unit and the utility module may further include a locking mechanism designated to prevent unintentional separation of the engagement surfaces while they are interlocked;

[0084] The locking mechanism is manipulable between an unlocked position in which said engagement surfaces may slide upon each other, and a locked state in which the engagement surfaces may not slide upon each other;

[0085] The locking mechanism may be configured with a biasing mechanism for snap arresting at least at its locked state;

[0086] The locking mechanism may be configured with a manually operated activating portion for switching between said unlocked and locked positions.

[0087] The carrier unit may be assembled together with other carrier units the same way it's assembled with the utility modules;

[0088] The locomotion system of the carrier unit may comprise a wheel system (e.g. axially fixed roller wheels, swivel wheels, etc.), a sliding platform, caterpillar tracks, etc;

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[0089] The locomotion system of the carrier unit comprises, according to a particular example, several fixed axis wheels, wherein the perimeter of said wheels is tangent with a base edge of the carrier unit;

[0090] At an assembled configuration, where one or more utility modules are attached to the carrier unit, the assembly can be positioned vertically wherein a side face of the one or more containers rest over a supporting surface. According to a particular example, at this position the carrier unit and container assembly are configured with stability members for retaining their stability while positioned vertically to the ground;

[0091] The carrier unit may be stable while positioned horizontally to the ground, by a support system projecting from a bottom face thereof. The support system may comprise friction enhancing surfaces to restrict displacement of the assembly while placed over a bearing surface;

[0092] The carrier unit may be foldable to a more compact configuration;

[0093] The carrier unit may comprise an external storage box detachably interconnectable to its exterior walls;

[0094] The carrier unit may comprise a power supply detachably interconnectable to its exterior walls;

[0095] The carrier unit's transporting system may be motorized while powered via said power supply;

[0096] The carrier unit may further include a locking mechanism to insure interlocking connection of the engagement surfaces;

[0097] The container unit may comprise non-rigid portions;

[0098] The carrier unit may comprise at least one manipulating arrangement, configurable between a stowed position in which the manipulating arrangement is retracted, and a manipulating position in which the manipulating arrangement is extracted. The manipulating arrangement may be a telescopic or foldable handle;

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[0099] The manipulating arrangement may be a gripping handle, a D-grip handle, a T-grip handle, a flexible strap, etc.

EMBODIMENTS

[00100] The present disclosure also encompasses embodiment as defined in the following numbered phrases. It should be noted that these numbered embodiments intended to add to this disclosure and is not intended in any way to be limiting.

[00101] 1. A coupling mechanism configured for readily detachably attaching a first utility module to a second utility module, the coupling mechanism comprising a male coupler at a face of one of the first utility module and the second utility module, and a female coupler at a face of the other one of the first utility module and the second utility module, said female coupler having a depressed locking location configured with at least one locking rib extending above a depressed surface and along a sliding path, and having an open edge facing in a first sense; said male coupler having a projecting locking location disposed in register with said depressed locking location and configured with at least one locking tongue extending along said engaging sliding path at a second sense, opposite to said first sense, and configured for arresting engagement at a space between said locking rib and depressed surface, the coupling mechanism further comprises at least one locking member for arresting the first utility module with respect to said second utility module and preventing sliding displacement along said sliding path.

[00102] 2. The coupling mechanism of embodiment 1, wherein said female coupler is configured at the top face of the first utility module, and the male coupler is configured at the bottom face of the second utility module.

[00103] 3. The coupling arrangement of embodiment 1 or 2, wherein the at least one locking rib extends substantially parallel to the sliding path.

[00104] 4. The coupling arrangement of embodiment 1 or 2, wherein the at least one locking rib extends substantially perpendicular and intersects the sliding path.

[00105] 5. The coupling arrangement of embodiment 1 or 2, wherein the female coupler comprises a single locking rib extends at rear end of a depressed locking location and substantially perpendicular to the sliding path.

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[00106] 6. The coupling arrangement of embodiment 1 or 2, wherein the female coupler comprises two locking ribs extend at side edges of a depressed locking location and disposed substantially parallel to the sliding path.

[00107] 7. The coupling arrangement of embodiment 1 or 2, wherein the female coupler comprises two locking ribs each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path.

[00108] 8. A coupling mechanism for a utility assembly that comprises at least a first utility module and at least a second utility module, said coupling mechanism is configured between the first utility module and the second utility module; one of a top face of the first utility module and a bottom face of the second utility module comprises at least one depressed locking location configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises at least one projecting portion with a locking tongue disposed in register with said at least one depressed locking location, and at least one locking latch disposed in register with said at least one locking latch arresting location; and wherein at a locked position the bottom face at least partially rests over the top face, and the at least one projecting tongue is arrested by the corresponding at least one locking rib and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location, such that engaging the first and second utility modules into the locked position is provided by sliding the second utility module with respect to the first utility module along a sliding path defined by at least one of said at least one locking rib and said at least one locking tongue.

[00109] 9. The coupling arrangement of embodiment 8, wherein the at least one locking rib extends substantially parallel to the sliding path.

[00110] 10. The coupling arrangement of embodiment 8, wherein the at least one locking rib extends substantially perpendicular and intersects the sliding path.

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[00111] 11. The coupling arrangement of embodiment 8, wherein a single locking rib extends at rear end of a depressed locking location and substantially perpendicular to the sliding path.

[00112] 12. The coupling arrangement of embodiment 8, wherein two locking ribs extend at side edges of a depressed locking location and disposed substantially parallel to the sliding path.

[00113] 13. The coupling arrangement of embodiment 8, wherein two locking ribs each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path.

[00114] 14. The coupling arrangement of any one of embodiments 8 to 13, further comprising a release latch for displacing the locking latch into disengagement from the locking latch arresting location can be disposed at a front face of the respective second utility module.

[00115] 15. The coupling arrangement of any one of embodiments 8 to 14, wherein the at least one locking latch and the at least one locking latch arresting location are disposed at a front portion of the respective utility modules.

[00116] 16. The coupling arrangement of any one of embodiments 8 to 15, wherein the locking latch is configured for displacement in a direction substantially normal to a respective face of a utility module.

[00117] 17. The coupling arrangement of any one of embodiments 8 to 16, wherein locking latch is spring biased and configured for normally projecting from a face of the respective first or second utility module.

[00118] 18. The coupling arrangement of any one of embodiments 8 to 17, wherein the locking latch is manipulable to be opened through an opening configured at a front wall of the respective utility module.

[00119] 19. The coupling arrangement of any one of embodiments 1 to 18, wherein one or both of the locking tongue and locking rib are configured with a slanting surface at corresponding orientation along the sliding path.

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[00120] 20. The coupling arrangement of any one of embodiments 1 to 19, wherein one or both of a front edge of the projecting portion (or the projecting locking location) and a corresponding front edge of the depressed locking location are slanted for gliding positioning of the second utility module into locking position over the first utility module.

[00121] 21. The coupling mechanism of any one of embodiments 1 to 20, wherein the first utility module is configured for detachably attaching one or more second utility modules thereto.

[00122] 22. A coupling mechanism for a utility assembly comprising at least a first utility module and at least a second utility module, said coupling mechanism is configured between the first utility module and the second utility module and comprises at one of a top face of the first utility module and a bottom face of the second utility module with at least one depressed locking location configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises at least one projecting portion with a locking tongue disposed in register with said at least one depressed locking location, and at least one locking latch disposed in register with said at least one locking latch arresting location; and wherein at a locked position the bottom face at least partially rests over the top face, and the at least one projecting tongue is arrested by the corresponding at least one locking rib and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, and further wherein disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

[00123] 23. A utility assembly comprising at least a first utility module and at least a second utility module, and comprising a coupling mechanism according to any one of embodiments 1 to 21, the coupling mechanism being configured between the first utility module and the second utility module.

[00124] 24. A utility assembly comprising at least a first utility module and at least a second utility module, and comprising a coupling mechanism for readily detachably attaching the first and second utility modules, the coupling mechanism being configured between the first utility module and the second utility module; said coupling mechanism comprising at one of a top face of the first utility module and a bottom face of the second utility module one or more depressed

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locking locations each configured with a locking rib, and at least one locking latch arresting location; and the other one of said top face of the first utility module and a bottom face of the second utility module comprises one or more projecting portions each configured with a locking tongue disposed in register with said one or more depressed locking locations, and at least one locking latch disposed in register with said at least one locking latch arresting location; such that at a locked position, the bottom face of the second utility module at least partially rests over the top face of the first utility module, and the one or more projecting tongues are arrested by the corresponding one or more locking ribs, and the at least one locking latch is arrested by corresponding at least one locking latch arresting location, thereby preventing sliding displacement between the first utility module and the second utility module, and disengaging the second utility module from the first utility module is facilitated by disengaging the at least one locking latch from the at least one locking latch arresting location.

[00125] 25. The utility assembly of embodiment 24, wherein the first and second utility modules are in a locking engagement when said one or more depressed locking locations and the one or more projecting portions are disposed behind one another.

[00126] 26. The utility assembly of embodiment 24 or 25, wherein said one or more depressed locking locations and said one or more locking latch arresting locations are configured at the top face of the first utility module, and the one or more projecting portions and the at least one locking latch are configured at the bottom face of the second utility module.

[00127] 27. The utility assembly of any one of embodiments 24 to 26, wherein at least one second utility module is configured for snap-type locking over the first utility module.

[00128] 28. The utility assembly of any one of embodiments 24 to 27 wherein engaging the first and second utility modules into the locked position is provided by sliding the second utility module with respect to the first utility module along a sliding path defined by at least one of said at least one locking rib and said at least one locking tongue.

[00129] 29. The utility assembly of any one of embodiments 24 to 28, wherein the at least one locking rib extends substantially parallel to the sliding path.

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[00130] 30. The utility assembly of embodiment 29, wherein the at least one locking rib extends substantially perpendicular and intersects the sliding path.

[00131] 31. The utility assembly of embodiment 29, wherein a single locking rib extends at rear end of a depressed locking location and substantially perpendicular to the sliding path.

[00132] 32. The utility assembly of embodiment 29 wherein two locking ribs extend at side edges of a depressed locking location and disposed substantially parallel to the sliding path.

[00133] 33. The utility assembly of embodiment 29, wherein two locking ribs each extend at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path.

[00134] 34. The utility assembly of any one of embodiments 24 to 33, wherein a top face of a first utility module interlocks with a bottom face of a second utility module disposed thereover in a substantially fully overlapping relation, or with a bottom face of at least one second utility module only partially overlapping therewith.

[00135] 35. The utility assembly of any one of embodiments 24 to 33, wherein the second utility module overlaps a significant portion of a first utility module and is configured with a single release latch for displacing several locking latches articulated therewith.

[00136] 36. The utility assembly of any one of embodiments 24 to 35, further comprising a release latch for displacing the locking latch into disengagement from the locking latch arresting location can be disposed at a front face of the respective second utility module.

[00137] 37. The utility assembly of any one of embodiments 24 to 36, wherein the locking latch is configured for displacement in a direction substantially normal to a respective face of a utility module.

[00138] 38. The utility assembly of any one of embodiments 24 to 37, wherein the locking latch is spring biased and configured for normally projecting from a face of the respective first or second utility module.

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[00139] 39. The utility assembly of any one of embodiments 24 to 38, wherein two or more second utility modules can be mounted over a first utility module, each being independently detachable attachable over the first utility module.

[00140] 40. The utility assembly of any one of embodiments 24 to 39, wherein at least one of the first utility module and the second utility module are configured with a gliding surface facilitating displacement and positioning the respective second utility module at the locking position with respect to the first utility module.

[00141] 41. The utility assembly of any one of embodiments 24 to 40, wherein one or more of the utility modules is a container module, and the utility assembly is a container assembly or a tool caddy.

[00142] 42. The utility assembly of embodiment 41, wherein the container module is compartmented and optionally configured with sub-containers and sub-compartments.

[00143] 43. The utility assembly of embodiment 41 or 42, wherein a top face of the container module is configured as a lid or as a functional component of the container module.

[00144] 44. The utility assembly of any one of embodiments 41 to 43, wherein the container modules is a locomoting container, configured with an arrangement for locomoting said utility assembly.

[00145] 45. The utility assembly of any one of embodiments 41 to 44, wherein the container modules is configured with a carrying arrangement disposed at any one or more of its faces, optionally being a carrying handle.

[00146] 46. The utility assembly of any one of embodiments 24 to 40, wherein one or more of the utility modules is a soft-shell container with at least a rigid face portion.

[00147] 47. The utility assembly of any one of embodiments 24 to 40, wherein said first utility module is a mobile carrier unit.

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[00148] 48. The utility assembly of any one of embodiments 24 to 47, further comprising a locking mechanism for preventing unintentional separation of the modules while they are interlocked.

[00149] 49. The utility assembly of any one of embodiments 24 to 48, wherein the first utility module is configured for detachably attaching at least two second utility modules thereto.

[00150] 50. A mobile carrier unit comprising at least one carrier engagement surface, compatible for interlocking engagement in a detachable manner with a first engagement surface of a utility module, said carrier engagement surface having (i) one or more depressed locking locations each configured with a locking rib and at least one locking latch arresting location, configured for engagement with said first engagement surface of a utility module that comprises at least one locking latch and one or more projecting portions, each projecting portion being configured with a locking tongue, or (ii) at least one locking latch and one or more projecting portions each configured with a locking tongue for engagement with said first engagement surface of a utility module that comprises one or more depressed locking locations, each depressed locking locations configured with a locking rib and at least one locking latch arresting location.

[00151] 51. The mobile carrier unit of embodiment 50, wherein once associated with the utility module, said locking tongue becomes disposed in register with said one or more depressed locking locations, and at least one locking latch become disposed in register with said at least one locking latch arresting location.

[00152] 52. The mobile carrier unit of embodiment 50 or 51, configured for detachable interlocking engagement with one or more utility modules, each utility module comprising a first engagement surface.

[00153] 53. The mobile carrier unit of any one of embodiments 50 to 52, further comprising at least one of a manipulating arrangement and a locomotion system.

[00154] 54. An assembly comprising a mobile carrier unit of any one of embodiments 50 to 53 having at least one carrier engagement surface, and at a least one utility module having a first

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engagement surface, the utility module being detachably interlocked with the mobile carrier unit by engaging said first engagement surface with said carrier engagement surface.

[00155] 55. The assembly of embodiment 54, wherein the mobile carrier unit and the at least one utility module are detachably interlocked with one another by a dovetail engagement mechanism, that comprises laterally projecting shoulders configured on one of the carrier engagement surfaces and the first engagement surface of a utility module, and a shoulder receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said laterally projecting shoulders are configured for sliding engagement with said shoulder receiving recess.

[00156] 56. The assembly of embodiment 55, wherein one or both of the carrier engagement surfaces and the first engagement surface of a respective utility module are configured with depressions, each accommodating respective laterally projecting locking shoulders.

[00157] 57. The assembly of embodiment 54, wherein the mobile carrier unit and the at least one utility module are detachably interlocked with one another by an undercut engagement mechanism, comprising lateral projections configured on one of the carrier engagement surfaces and the first engagement surface of a container unit, and a receiving recess configured on the other one of one of the carrier engagement surfaces and the first engagement surface of a utility module; where said lateral projections are configured for engagement with said receiving recess, such that interlocking engagement of the utility module and the carrier unit takes place by placing the first engagement surface of a utility module over the carrier engagement surface, such that the utility module's first engaging elements are disposed shifted over the respective carrier engaging elements of the carrier unit, and are then slidingly shifted to obtain sliding interlocking engagement therebetween.

[00158] 58. The assembly of any one of embodiments 54 to 57, further comprising a locking mechanism configured for preventing unintentional detaching of the utility module from the carrier unit.

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[00159] 59. The assembly of embodiment 58, wherein the locking mechanism comprises a locking pin that is configured for snapingly protruding from one of the engagement surfaces into a designated nook on the other engagement surface.

[00160] 60. An interface coupling module comprising at least one engagement surface, compatible for interlocking engagement in a detachable manner with a first engagement surface of a utility module, said interface coupling module comprising an engagement surface having (i) one or more depressed locking locations each configured with a locking rib and at least one locking latch arresting location, configured for engagement with said first engagement surface of a utility module that comprises at least one locking latch and one or more projecting portions, each projecting portion being configured with a locking tongue, or (ii) at least one locking latch and one or more projecting portions each configured with a locking tongue for engagement with said first engagement surface of a utility module that comprises one or more depressed locking locations, each depressed locking locations configured with a locking rib and at least one locking latch arresting location

[00161] 61. The interface coupling module of embodiment 60, being configured for detachable or fixed attachment to a surface of an object.

[00162] 62. The interface coupling module of embodiment 60 or 61, being a cargo interface module for a utility vehicle configured for attaching one or more utility modules to the vehicle.

[00163] 63. The interface module of embodiment 60 or 61, being a surface mount for attaching utility modules

[00164] 64. The interface module of embodiment 60 or 61, being a tool mount or a tool rack.

[00165] 65. The interface module of embodiment 60 or 61, being a belt mount for mounting of utility modules to a workers belt;

[00166] 66. The interface module of embodiment 60 or 61, being an interface mount module for coupling two utility modules to one another.

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BRIEF DESCRIPTION OF THE DRAWINGS

[00167] 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: Figs. 1A to 6G are directed to a first example of a locking mechanism, wherein:

[00168] Fig. 1A is a top perspective view of a container assembly according to an example of the present disclosure;

[00169] Fig. 1B is an exploded perspective view of the container assembly of Fig. 1A;

[00170] Fig. 1C is a bottom, front perspective view of Fig. 1B;

[00171] Fig. 1D is a bottom, rear perspective view of Fig. 1B;

[00172] Fig. 2A is a sectioned portion along line A-A in Fig. 1A;

[00173] Fig. 2B is a sectioned portion along line B-B in Fig. 1A;

[00174] Fig. 2C is a sectioned portion along line C-C in Fig. 1A;

[00175] Figs. 3A to 3D are consecutive steps illustrating locking engagement of the locking tongue of the second container with the respective locking rib of the first container;

[00176] Figs. 4A to 4D are consecutive steps illustrating locking engagement of the locking latch of the second container with the respective locking latch arresting location of the first container;

[00177] Figs. 5A to 5E schematically demonstrate modularity of a container assembly according to the disclosure;

[00178] Figs. 6A to 6G are various combinations of a modular container assembly according to examples of the present disclosure.

[00179] Figs 7A to 12C are directed to a carrier unit and another example of a locking mechanism, wherein:

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[00180] Fig. 7A is container carrier assembly according to an example of the disclosure, illustrating a top, left perspective view of a container unit, mounted on top of a carrier unit;

[00181] Fig. 7B is a top, left perspective view of a second container unit, mounted on top of a first container unit, which in turn is mounted on top of a carrier unit according to an example of the present disclosure;

[00182] Fig. 8A is a top, left perspective view of a carrier unit, illustrating the carrier engagement surface in further detail;

[00183] Figs. 8B and 8C are a top and a bottom perspective view of a carrier unit, illustrating the container unit's first engagement surface in further detail;

[00184] Fig. 9A is a side section along line F-F in Fig. 7A, illustrating the container unit and the carrier unit unattached;

[00185] Fig. 9B is a side section along line F-F in Fig. 7A illustrating the container unit and the carrier unit attached;

[00186] Fig. 9C is a close-up view of Fig. 9B;

[00187] Fig. 9D is a sectioned view along line F-F in Fig. 7A illustrating the interlocking engagement of the carrier engaging elements together with the container unit's first engaging elements;

[00188] Fig. 10A is a sectioned view along line D-D in Fig. 7A, illustrating the locking mechanism;

[00189] Fig. 10B is an enlarged image of the portion marked M in Fig. 10A;

[00190] Fig. 11A illustrates different sizes of container units forming an assembly, at a tilted orientation;

[00191] Fig. 11B illustrates an assembled configuration balanced vertically relatively to the ground;

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[00192] Fig. 12A shows a container assembly wherein the female coupler comprises two locking ribs extending at respective side edges of two neighboring depressed locking locations;

[00193] Fig. 12B is a section along line H-H in Fig. 12A;

[00194] Fig. 12C illustrates the utility module apart from the container and flipped, so as to expose the mating coupling mechanism.

[00195] Figs. 13A-13D, 14A-14C, 15A-15B, 16A-16B, 17, 18A-18C, and 19-24 are different embodiments and configurations of utility modules and utility assemblies according examples of this disclosure.

DETAILED DESCRIPTION OF EMBODIMENTS

[00196] Reference is first being made to Figs. 1A to 6G, directed to a first configuration of a coupling mechanism. For sake of convenience the utility modules are exemplified as containers and respectively the utility assembly is illustrates as a tool caddy. It is however appreciated that the utility modules can be of any type, shape or size, as discussed hereinabove and as will be exemplified below.

[00197] Attention is first directed to Figs. 1A to 4D, illustrating a container assembly generally designated 20, comprising four containers 22, 24, 26 and 28 disposed in a triple stage configuration, the stages designated A, B and C. In the illustrated example containers 24 and 26 of the second stage are half-size and overlap the footprint of the first stage container 22 and the third stage container 28, wherein the first container 22 is for example a hand tool container and containers 24 to 28 are organizers or the like.

[00198] The term 'first container' as used herein denotes a container bearing over a top face thereof at least one other container, said at least one other container denoted herein as a 'second container'. It is thus appreciated that a second container of a container assembly comprising three or more stages of containers' serves as second container when referred to the first stage container, and as a first container when referred to a third stage container mounted thereover. Accordingly, in the illustrated example of Figs. 1A-2C, container 22 is a first container and containers 24 and 26 are second containers, whilst they function as first containers when discussing locking arrangement with respect to third stage container 28.

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[00199] Each of the containers is configured with a lid L constituting a top face of the respective container, said lids being pivotally attached and securely articulated to the respective container through a toggle locking latch 29. Each top face (see Fig.lB) is configured with several depressed locking locations 32 and it is seen that the at least two depressed locking locations are disposed behind one another along imaginary lines I, II and III (though not necessarily aligned).

[00200] Each such depressed locking location is in turn configured with a laterally projecting locking rib 36 extending from a rear portion of the depressed locking location 32 towards a front face of the container. The locking rib 36 has a flat top surface 38 substantially flush with a top surface of the respective lid L, and a slanting bottom surface 40. A front portion 46 of the depressed locking location 32 is slanted too, in the same orientation as bottom surface 40 (i.e. substantially parallel thereto).

[00201] Furthermore, the top face, namely lid L of the containers, is configured with at least one locking latch arresting location in the form of a recess 50 disposed at a front portion of the respective top face and configured with a slanted rear wall portion 52 and a right angled front wall portion 53.

[00202] A bottom face 54 of each container 22, 24, 26 and 28 is configured with several projecting portions 56, extending in register with the depressed locking locations 32, and it is seen that the at least two projecting portions 56 are disposed behind one another along the imaginary lines I, II and III (though not necessarily aligned).

[00203] Each projecting portions 56 is configured with a locking tongue 60 laterally projecting rearwards and having a slanted surface 62 corresponding with slanting surface 40 of locking rib 36. Also, a front portion 66 of the projecting portions 56 slants substantially parallel to the slanted surface 62 of the locking tongue 60.

[00204] It is essential that the at least two depressed locking locations 32 and the at least two projecting portions 56 be disposed behind one another (though not necessarily aligned), as exemplified by imaginary lines I, II and III (though not necessarily aligned).

[00205] A plunger-like locking latch 70 is disposed at a front portion of each container, said locking latch 70 disposed in register with the recesses 50 and configured with a slanting rear wall

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portion 72 and a right angled front wall portion 74, corresponding with the sloping wall portions of the recesses 50. The locking latch 70 has an elongate finger engaging aperture 73 (Fig. 2A) accessible through an aperture 75 formed in register at a front wall face of the respective second container, said locking latch 70 being normally biased to project under force of coiled spring 71, such that the locking latch 70 is axially displaceable between a projecting, locked position and a temporary retracted position during transition into the locked position.

[00206] The locking latch 70 is typically single-handedly manipulable between its locking position and its releasing position, such that manipulation of the locking latch to disengage it from the locking latch arresting location 50 can be easily facilitated using one hand simultaneously with gripping the carrying handle 80. As seen in Figs. 1A-2C, manipulating the finger engaging aperture 73, being part of locking latch 70, is disposed opposite to and at finger-reach distance from the carrying handle 80 when the handle is at its carrying position tilted upwards. This enables a grab, release and go detachment of the second utility module from the first utility module in a simple single-handed operation.

[00207] When it is required to detachably attach a second container over a first container, the former is placed over the later (Fig. 3A), placing the projecting portions 56 within the depressed locking location 32 (Fig. 3B) with the locking tongues 60 engaging below and being gradually arrested by the respective locking ribs 36 arresting is obtained (Fig. 3C) until complete arresting is obtained (Fig. 3D). Simultaneously, as the locking tongues 60 arrest by the locking ribs 36, the locking latch 70 of the second container slides into the locking latch arresting location (recess 50) and finally snaps into locking engagement therewith. It is noted (Figs 4A to 4D) that first (Figs. 4B and 4C) the locking latch 70 displaces upwards against the biasing effect of spring 71, and when the second container reaches the final locking position over the first container, the locking latch 70 plunges into arresting position within the recess 50.

[00208] At the locked position the second container is attached over the top face of the first container, such that they can be moved as an integrated unit. Detaching of a second container from a first container is easily facilitated by unlocking, obtained by displacing the locking latch 70 upwards against the biasing effect of spring 71, whereby the second container can be displaced with respect to the first container and detached therefrom.

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[00209] As further seen in Figs. 1A-4D, each of the containers 22, 24, 26 and 28, is configured at a front face thereof with a tiltable carrying handle 80, for carrying a respective container or the entire container assembly 20. Also seen, some of the containers can be configured with fender-like protectors 90 at their corners.

[00210] Further attention is now directed to Figs. 5A to 5E demonstrating examples of modularity of a container assembly according to the disclosure. Fig. 5A is a planner top view of a first container 94 and Figs. 5B to 5E illustrate second containers superimposed over the first container 94. In Fig. 5B a second container 96 is substantially as big as the first container 94, i.e. having the same footprint. In Fig. 5C a second container 98 is as wide as the first container 94, however narrower in depth, and disposed at a front portion of the first container. In Fig. 5D two second containers 99A and 99B are mounted over the first container 94 and occupy substantially the entire footprint thereof, whereby each of containers 99A and 99B is independently attachable and detachable from the first container 94, as exemplified hereinabove. In Fig. 5E two second containers 100A and 100B are positioned over the first container 94, occupying the entire width though narrower in depth and extending from a front portion of the first container 94.

[00211] Turning now to Figs. 6A to 6K, there are illustrated several examples of container assemblies, subassemblies and their components. Fig. 6A illustrates a disassembled container assembly collectively designated 104 and comprising a base container 106, a chest of drawers module 108 comprising three drawers, a tool caddy module 110, a compartmented storage module 112 and a half-sized compartmented storage module 114 (typically two of which). It is noted that the base container is configured for locomoting and comprises at a rear thereof wheels 116 and a telescopic handle 118.

[00212] As can be appreciated from Figs. 6B through 6D, various container assemblies are illustrated, the arrangement is such that in practice any module can constitute either a first container or a second container, as defined hereinabove (though it is more likely that base container 106 serves as a first container).

[00213] Figs. 6E and 6F illustrate a chest of drawers module 108, illustrated separately in Fig. 6E and mounted over a similar drawer module 108 in Fig. 6F. It is appreciated that the drawers of each module can be locked at their closed position to prevent spontaneous opening thereof

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whilst carrying a module. Furthermore, each module 108 is configured with a pair of carrying handles 115 disposed at top side wall portions thereof, to facilitate carrying of the module.

[00214] In Fig. 6G there is illustrated a subassembly comprising a first container in the form of a tool caddy module 110 and second container in the form of a compartmented storage module 112 attached thereto, whilst the lid 119 of the first container is open facilitating access to the contents thereof.

[00215] Further attention is now directed to Figs. 7A to 16B, showing a third aspect of the disclosure, namely a utility module being a mobile carrier unit and comprising at least one carrier engagement surface, compatible for interlocking engagement in a detachable manner with a first engagement surface of a second utility module. For sake of example only, the second utility module exemplified in the annexed drawings is in the form of a utility container. It is however appreciated that the utility modules can be of any type, shape or size, as discussed hereinabove and as will be exemplified below. Accordingly, the term container unit as used in the following description denotes any type of a utility module, as discussed herein the specification.

[00216] Attention is first directed to Fig. 7A, illustrating a container carrier assembly generally designated 200 comprising a container unit 202 (utility module) mounted on top of a carrier unit 206. The carrier unit 206 is equipped with a telescopic manipulating handle 210, a pair of rear wheels 208 and a set of horizontally stabilizing support legs 212 at a front portion of the carrier unit 206. The carrier unit 206 and the container unit 202 are engaged in an interlocking engagement via their engagement surfaces, i.e. a carrier engagement surface 216 at a top face of the a carrier unit 206 (best seen in Fig. 8A), and the container unit's first engagement surface 220 (namely its bottom face; best seen in Figs. 8B and 8C). The container unit 202 is configured with yet a second engagement surface 226 (namely the container's top face), simulating the carrier engagement surface 216. The container unit 202 further comprises a locking mechanism 230 configured for arresting within a respective notch 231 at the carrier engagement surface 216, to thereby to prevent displacement and separation of the engagement surfaces 216 and 220 once they are interlocked, as later will be explained.

[00217] The carrier engagement surface 216 seen in greater detail in Fig. 8A, illustrates a top perspective view of a carrier unit 206 with the telescopic handle 210 in a retracted position. The

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carrier engagement surface 216 comprises multiple carrier engaging elements 236, depressed from the surface, and designated for interlockingly receiving respective container unit's first engaging elements 240, projecting from the first engagement surface (bottom face) 220 of the container unit 202.

[00218] Each carrier engaging element 236, is a so-called female coupler and has a depressed locking location configured with at least one locking rib extending above a depressed surface and along a sliding path and having an open edge facing in a first sense. As seen in the drawings, it is generally constituted by a receiving recessed depression 244 in the carrier engagement surface 216, configured with a pair of facing locking ribs 248, forming the aforementioned recess. The locking ribs 248 extend substantially parallel to sliding path of the container unit 202 with respect to the carrier unit 206, said path (designated Pin Figs. 7A and 10B). Further noted, side walls 250 of depressions 244 are sloped in order to allow directing of a container unit's first engaging element 240, mounted upon it, to its interlocking position.

[00219] A corresponding coupler configured at the container unit is a so-called male coupler comprising a projecting locking location disposed in register with said depressed locking location and configured with at least one locking tongue extending along said engaging sliding path at a second sense, opposite to said first sense, and configured for arresting engagement at a space between said locking rib and depressed surface. As seen, a single container unit's engaging element 240 is generally constituted a downwardly projecting outwards protrusion 258, projecting from the bottom face 220 of the container 202.

[00220] In order to lock the container 202 over the carrier unit 206, upon placing the container 202 over the carrier engagement surface 216 of carrier unit 206 one must mount the container unit's first engaging elements 240 into the depressions 244 and then slide the container 202 along the sliding path P (i.e. towards the locking ribs 248) so that the engaging elements 240 engage below said projecting ribs/shoulders 248 and the engaging elements 240 are thus arrested at a space between said locking ribs and the depressed surface, as seen in Fig. 9C. Interlocking engagement of the container (or any other utility module) can be facilitated by a single male-female locking mechanism of the aforementioned type, or by a plurality of such locking mechanism, at any location over the carrier unit 206.

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[00221] The shape and size of the locking members is modular as far as the depression 244 in the carrier engagement surface 216, can be single or double in size (e.g. 236 and 236A in Fig. 8A, respectively), so it is large enough to accommodate two container unit's first engaging elements 240, or two neighboring container unit's first engaging elements.

[00222] Locking/engaging and detaching of this configuration is similar to a single locking module.

[00223] The engagement and locking mechanism is modular in the sense that any first article can be easily and readily articulated to a surface of any second article, wherein the articulation is strong and firm (i.e. substantially motionless).

[00224] With further reference to Fig. 7B, there are illustrated two containers 202A and 202B articulated over one another, the arrangement being such that the bottom face of the intermediate container 202A serves for engaging with the top face of the carrier unit 206 and likewise, the top face of the intermediate container 202A serves for engaging with the bottom face of the top container 202B, as discussed herein above. The arrangement is such that each stage is lockingly secured by the locking mechanism 230, wherein each stage can be detached from the stage below upon releasing locking engagement of the respective locking mechanism 230.

[00225] The locking mechanism 230 is shown in further detail in Figs. 10A and 10B. The locking mechanism comprises a locking pin 231 normally biased by spring 233 such that a tip 235 projects from a bottom surface of the container 202 (see also Fig. 8B) and is configured for snap arresting within a respective notch 231 configured at the engagement surface 216 of the carrier unit 206 (seen also in Fig. 8A). The locking pin 231 is slidable within a race at the side wall of the container, and comprises a finger manipulating portion at 237 (accessible through an opening at the side wall of the container), for displacing the locking pin, against the biasing effect of spring 233, into its disengaged position, thus facilitating sliding the container along the path P into disengagement from the carrier unit (or respective other container or utility module). The carrier unit 206 is further configured at a bottom end, with a pair of stability supports 264 (Figs. 8A, 1lB), configured for supporting the carrier unit, with or without a container attached thereto, at an upright, i.e. vertical position, thus preventing it from tipping over, in particular with containers or any other utility module articulated thereto. Stability supports 264 can be,

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according to a particular configuration, an extension of the telescopic handle 210, whereby the stability supports are functional as such only when the handle is fully contracted. However, in the illustration of Figs. 16A-16B the utility assembly 253 is maintained at its upright position owing to said stability supports 264 and further bearing over a side face 266 of the intermediate container 202A, being substantially flush with a bottom face of the stability supports 264.

[00226] With further reference to Figs. 12A to 12C there is illustrated a modification of articulation between a first utility module (container 300 in the particular example) and a second utility module (two work-piece supports 304 in the particular example). The container 300 is substantially similar to that illustrated in the previous examples, wherein the cover/lid 308 is configured with a plurality of female coupler members 310, each configured with a depressed locking location and a pair of locking ribs extending above the depressed surface and along a sliding path. The opposing locking ribs 312A and 312B have an open edge facing in a first sense (the introducing direction).

[00227] In the examples hereinbefore, engagement with a corresponding male coupler took place within the vicinity of a single coupling element, i.e. over two engaging ribs 312A and 312B of a single depressed locking location facing each other. However, in the example of Figs. 12A-12C engagement of the work-piece supports 304 takes place over two engaging ribs 312A and 312B of two neighboring depressed locking locations 308A and 308B. Accordingly, the male coupler of the two work-piece supports 304 is configured for arresting with the two engaging ribs 312A and 312B by two individual (separate) male couplers 316A and 316B, each configured for arresting one of the respective engaging ribs 312A and 312B. Arresting of the male projections 316 takes place as discussed before, by arresting below the respective engaging ribs, within the space at the depressed locking location. In spite of the relative narrow body structure of the work-piece supports 304, they are each configured with a locking mechanism 330, similar to locking mechanism 230 discussed hereinbefore.

[00228] Turning now to Figs. 13A-13D, 14A-14C, 15A-15B, 16A-16B, 17, 18A-18C, and 19-24, there are illustrated various examples of utility modules, utility assemblies and various configurations according to the disclosure.

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[00229] Fig. 13A illustrates a utility module assembly generally designated 400, comprising a wheeled base container 402 supporting an intermediate container 404, bearing in turn a cooler box 406 and a power unit 408 disposed side by side over the intermediate container. At least the intermediate container 404 is configured at a bottom face thereof with a male-type coupling arrangement, for attachment over the cover of the base container, said cover configured with a respective female coupling arrangement. The cover of the intermediate container 404 is configured with a similar female coupling arrangement, and can thus engage with one the utility modules 406 and 408, each configured at its bottom face with a respective male-type coupling arrangement.

[00230] It is seen in Figs. 13B through 13D that the intermediate container 404 is fitted with a pivotal carrying handle 418 articulated at the top side walls thereof. The carrying handle has a thickness t and the arrangement is such that at the stowed/folded position (Figs. 13B, 13D) the handle 418 is received within a peripheral groove 422 extending over a top edge of the intermediate container 404 and a peripheral groove 424 extending at a bottom edge of the utility modules 408 and 406 (cooler box 406 and a power unit 408), such that the handle 418 does not constitute an obstacle in mounting and interlocking a utility module over another utility module. It is also seen that at least some of the utility modules are configured with side handles 428 serving both as carrying handles and as bumpers.

[00231] Figs. 14A to 14C illustrate a first utility module in the form of a container 430 supporting two detachable workpiece-piece supports 432 (attached as discussed herein before with reference to Figs. 12A-12C). Fig. 14C illustrates a utility module in the form of a work surface 436 configured with a vice race 438, so that a vice 440, or other workshop tools can be used. The workpiece-piece supports 432 are configured with a male type coupling having projecting locking locations 444 for engaging with respective female couplers.

[00232] In Figs. 15A and 15B there is illustrated a back-rack 450 being a substantially rigid platform having a carrying handle 451 and configured at one side thereof with a pair of adjustable shoulder harnesses 452, and an adjustable waist harness 454. The other side of the back-rack is configured as a universal utility mounting platform 458, configured with a plurality of attachment locations 460. In the illustrated example all attachment locations 460 are so-called female attachments (as discussed hereinabove in detail), however it is appreciated that the

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attachment locations can just as well be male-type attachments, or a combination of male and female attachments. According to yet an example (not shown), one side of the carrying platform can be configured with male- type attachments, and an opposite side of the platform be configured with female-type attachments, wherein a used has the choice of attaching the platform to the harness system at an orientation of choice.

[00233] In Fig. 16A there is illustrated a utility module in the form of a wheeled carrying unit 464 (shown from a bottom side), similar to that disclosed in connection with Figs. 7A to 11B. The carrying unit 464 comprises a rigid platform 466 fitted at a top face thereof with a female/male attaching arrangement in accordance with the disclosure, such that any utility module according to the disclosure can be detachably attached thereto. Also provided is a telescopic manipulating handle 468 and a pair of wheels 466. The carrying unit can be fitted with a collapsible support plate configuring it into a pushcart (not shown).

[00234] Fig. 16B shows a utility assembly 276 comprising a wheeled base container 278 interlocked with a first intermediate container 280 mounted thereover (constituting a second stage of the assembly), and a second intermediate container 282 mounted thereover (constituting a third stage of the assembly 276), there being yet a fourth stage utility module container 284 mounted over the second intermediate container 282.

[00235] Whilst the second intermediate container 282 has a wider footprint than the first intermediate container 280, this does not constitute any difficulty as far as attaching it over the second intermediate container 282, and further, the top face of the second intermediate container 282 has a great surface suited for articulation thereof of several fourth stage utility modules (only one shown).

[00236] Fig. 17 shows a carrying bag 281 having soft side walls 283 (in the example illustrated made of fabric), however fitted with (integrally or detachable) an articulation platform base 284, said articulation platform made of a firm rigid material and is configured with four male-type coupling locations 288 of the type disclosed hereinabove. The carrying bag 281 has a carrying strap 290 useful for hand held or shoulder carrying of the bag.

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[00237] Figure 18A shows a rigid coupling platform 300, configured with a plurality of female coupling locations (of the type disclosed herein) and further configured with bolt eyes 298 for securing to any desired surface, and carrying bars 313.

[00238] The coupling platform 300 can be attached for example to a truck bed 306 (Fig. 20), directly over the truck bed or over a cargo container attached to the truck. The coupling platform 300 can be attached to a wall, as in Fig. 18B, wherein a plurality of various utility modules can be articulated thereto. For example, utility modules can be an electric charger 315 of a power tool, a wall mounted sorting container 314, a hand tool rack 318 (Fig. 18C), a tool coupling adaptor 320 (Fig. 18C), etc.

[00239] In Fig. 19 there is illustrated a belt-mount 319 configured as a female coupler according to the disclosure, wherein a tool 321 or a bag/pouch configured with a male coupler can be detachably attached thereto.

[00240] In Fig. 21 there is illustrated a wall rack 326 comprising four utility modules in the form of articulation platforms 328 (mountable at different elevations about the wall supports 327) each configured for bearing and attaching thereto any utility module in accordance with the disclosure.

[00241] In Fig. 22 there is illustrated a mobile work stand 340 comprising a wheeled base 342 supporting two racks 344 with four utility modules in the form of articulation platforms 346 (mountable at different elevations about the wall supports 327) each configured for bearing and attaching thereto any utility module (e.g. containers 348) in accordance with the disclosure.

[00242] In Fig. 23 the utility module is in the form of a dolly 352 configured with wheels 354 and having a top surface configured with an array of female type couplings, as discussed.

[00243] In Fig. 24 there is illustrated a utility coupling platform 358 suited for articulation to any desired article (e.g. a bag, a tool, etc.). The utility coupling platform is configured at least at one face thereof with a male coupling locations 360 mimicking the coupling arrangement of the disclosure, rendering it suitable for articulation with a coupling system according to the disclosure.

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WHAT IS CLAIMED IS:

1. A utility module assembly comprising:

a first utility module comprising:

a female coupler extending from a first face of the first utility module, the female coupler comprising two sidewalls, a back wall, and a first rib, the back wall extending between the two sidewalls, the first rib extending in a first direction above a surface of a depressed locking location; and

a second utility module comprising:

a male coupler extending from a second face of the second utility module, the male coupler comprising a tongue extending in a second direction opposite the first direction, the tongue of the second utility module is configured for arresting engagement between the first rib and the surface of the depressed locking location of the first utility module.

2. The utility module assembly of claim 1, wherein the female coupler and the male coupler engage when the first and second utility modules are slid along a sliding path defined by the first rib and the tongue.

3. The utility module assembly of claim 2, the female coupler comprising a second rib that extends above the depressed locking location.

4. The utility module assembly of claim 3, wherein the first rib and the second rib extend from a rear portion of the depressed locking location substantially parallel to the sliding path.

5. The utility module assembly of claim 4, wherein the first rib extends from the back wall and a first sidewall of the two sidewalls, and the second rib extends from the back wall and a second sidewall of the two sidewalls opposite the first sidewall.

6. The utility module assembly of claim 1,

the first utility module further comprising:

a second male coupler extending from a second face of the first utility module, the

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second male coupler including a tongue that is offset from the second face of the first utility module and extending in the second direction, the tongue of the first utility module configured to engage a rib of a third utility module, the first and third utility modules entering an engaged position by the third utility module sliding with respect to the first utility module.

7. The utility module assembly of claim 1, wherein the male coupler extends from a bottom face of the first utility module, and the female coupler extends from a top face of the second utility module.

8. The utility module assembly of claim 1, wherein the first face comprises a plurality of depressed locking locations, one of which the first rib extends above, and wherein the plurality of depressed locking locations of the first face comprise at least 50% of an area of the first face.

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9. A coupling platform for a stackable utility module configured to engage male couplers on an adjacent utility module comprising:

one or more female couplers each comprising a pair of locking ribs, two sidewalls and a depressed locking location, the pair of locking ribs extending above a surface of the depressed locking location and substantially parallel to a sliding path, wherein the male couplers of the adjacent utility module are configured to be engaged between the pair of locking ribs and the surface of the depressed locking location of the one or more female couplers.

10. The coupling platform of claim 9, further comprising a plurality of bolt eyes configured to secure the coupling platform to the stackable utility module.

11. The coupling platform of claim 9, further comprising a plurality of apertures configured to secure the coupling platform to the stackable utility module.

12. The coupling platform of claim 9, each of the female couplers further comprising a back wall that extends between the sidewalls, wherein a first rib of the pair of locking ribs extends from the back wall and a first sidewall of the two sidewalls, and a second rib of the pair of locking ribs extends from the back wall and a second sidewall of the two sidewalls.

13. The coupling platform of claim 12, wherein the first rib extends a first distance from the first sidewall and the first rib extends a second distance from the back wall that is more than twice as far as the first distance.

14. The coupling platform of claim 9, further comprising a panel comprising a top face from which the one or more female couplers extend, wherein the depressed locking locations of the one or more female couplers comprise at least 50% of an area of the top face.

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15. A platform for a stackable utility module configured to engage a female coupler on an adjacent utility module comprising:

a male coupler configured to arrestingly engage a space between a locking rib of the female coupler and a depressed surface of the female coupler, the male coupler comprising:

at least one locking tongue extending along a sliding path in a second direction opposite a first direction that the locking rib of the female coupler extends.

16. The platform of claim 15, the male coupler comprising:

a central body that extends downward from the platform;

wherein the at least one locking tongue comprises:

a first locking tongue offset from the platform that protrudes from the central body in a third direction; and

a second locking tongue offset from the platform that protrudes from the central body in a fourth direction opposite the third direction.

17. The platform of claim 16, wherein the first locking tongue extends from a front of the male coupler a first distance that is more than twice as far as the first locking tongue protrudes from the central body, and wherein the second locking tongue extends from the front of the male coupler a second distance that is more than twice as far as the second locking tongue protrudes from the central body.

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18. A male coupler for a stackable utility module configured to engage a female coupler on an adjacent utility module comprising:

a protrusion configured with at least one locking tongue extending along a sliding path in a second direction opposite a first direction that a locking rib of the female coupler extends, the at least one locking tongue configured for arresting engagement between a locking rib of the female coupler and a depressed surface of the female coupler.

19. The male coupler of claim 18 further comprising a central body, wherein the at least one locking tongue comprises:

a first locking tongue that protrudes from the central body in a third direction; and

a second locking tongue that protrudes from the central body in a fourth direction opposite the third direction.

20. The male coupler of claim 19, wherein the first locking tongue extends from a front of the male coupler a first distance that is more than twice as far as the first locking tongue protrudes from the central body, and wherein the second locking tongue extends from the front of the male coupler a second distance that is more than twice as far as the second locking tongue protrudes from the central body.

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ABSTRACT

The present disclosure concerns a coupling mechanism for detachably attaching two or more utility modules to one another, utility assembles, mobile carriers and other attachable modules and articles.

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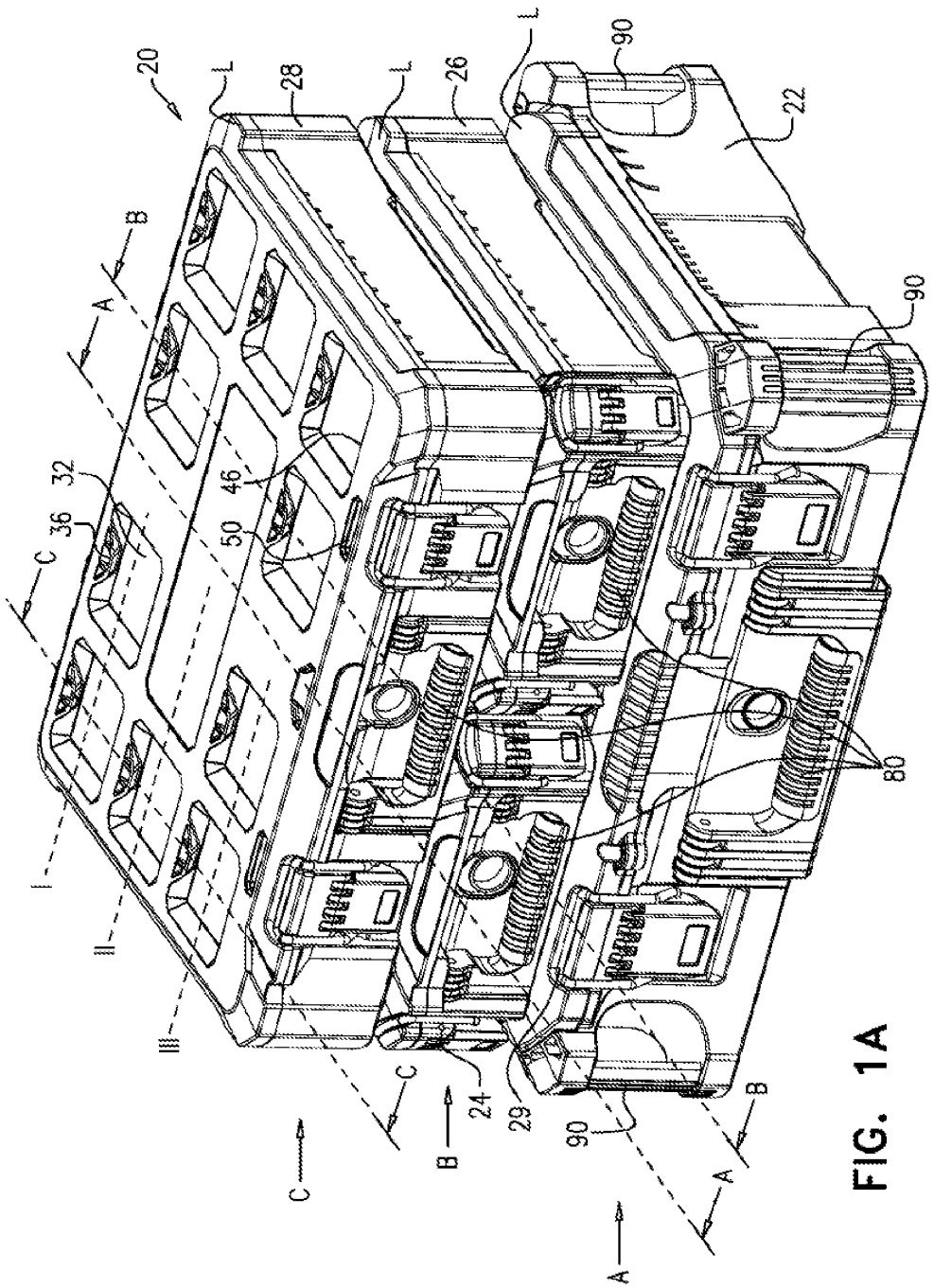


FIG. 1A

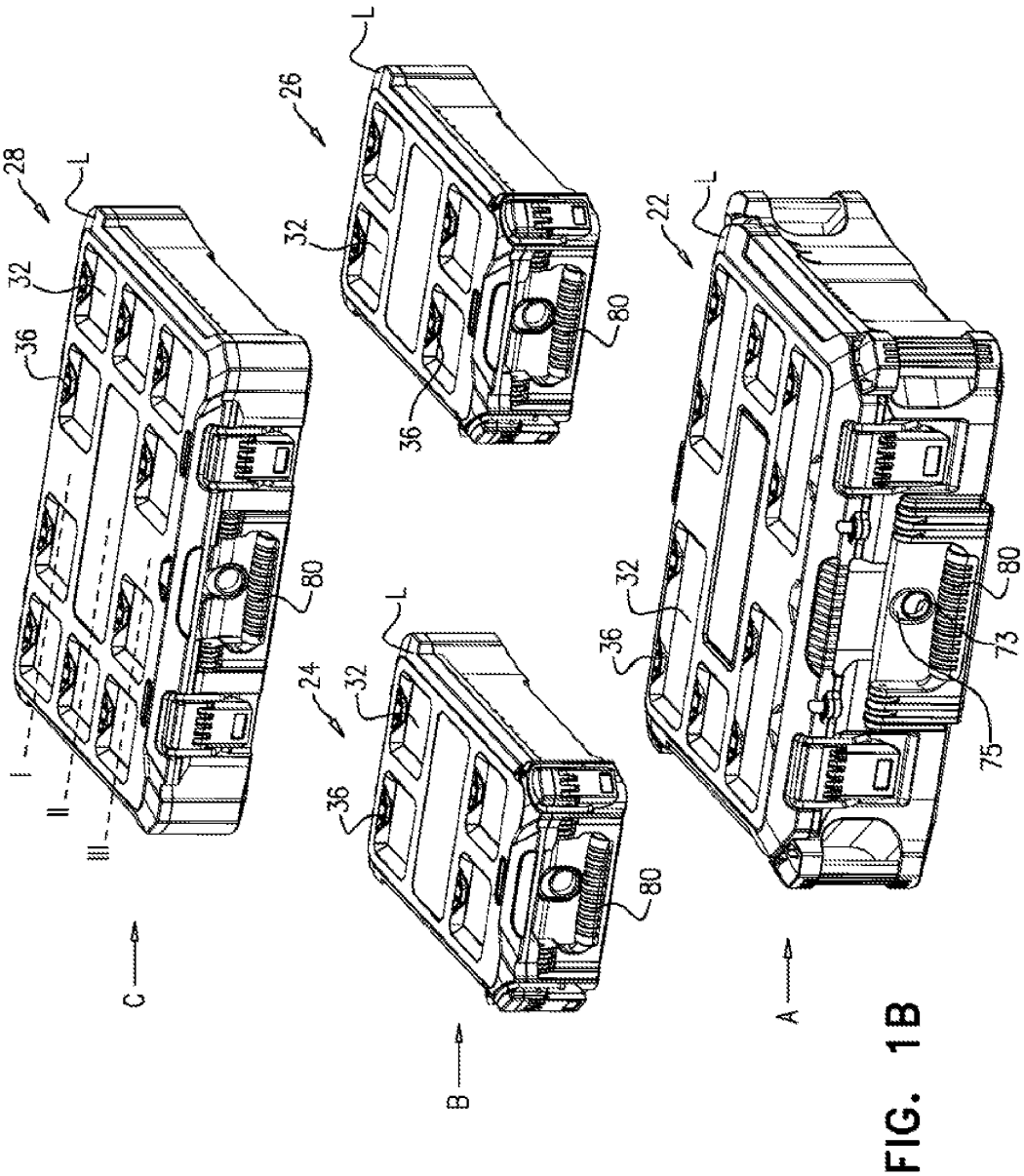


FIG. 1B

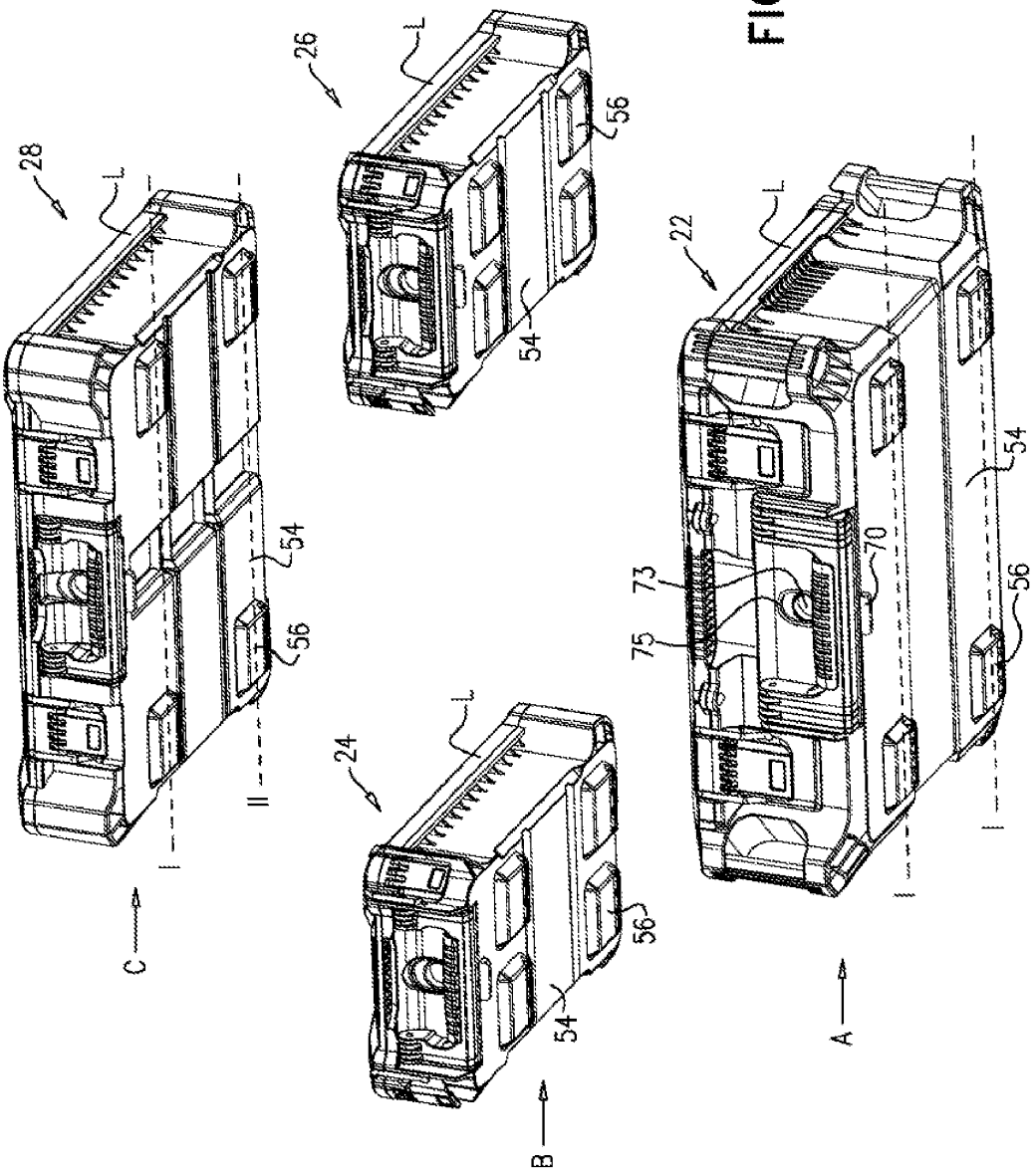


FIG. 1C

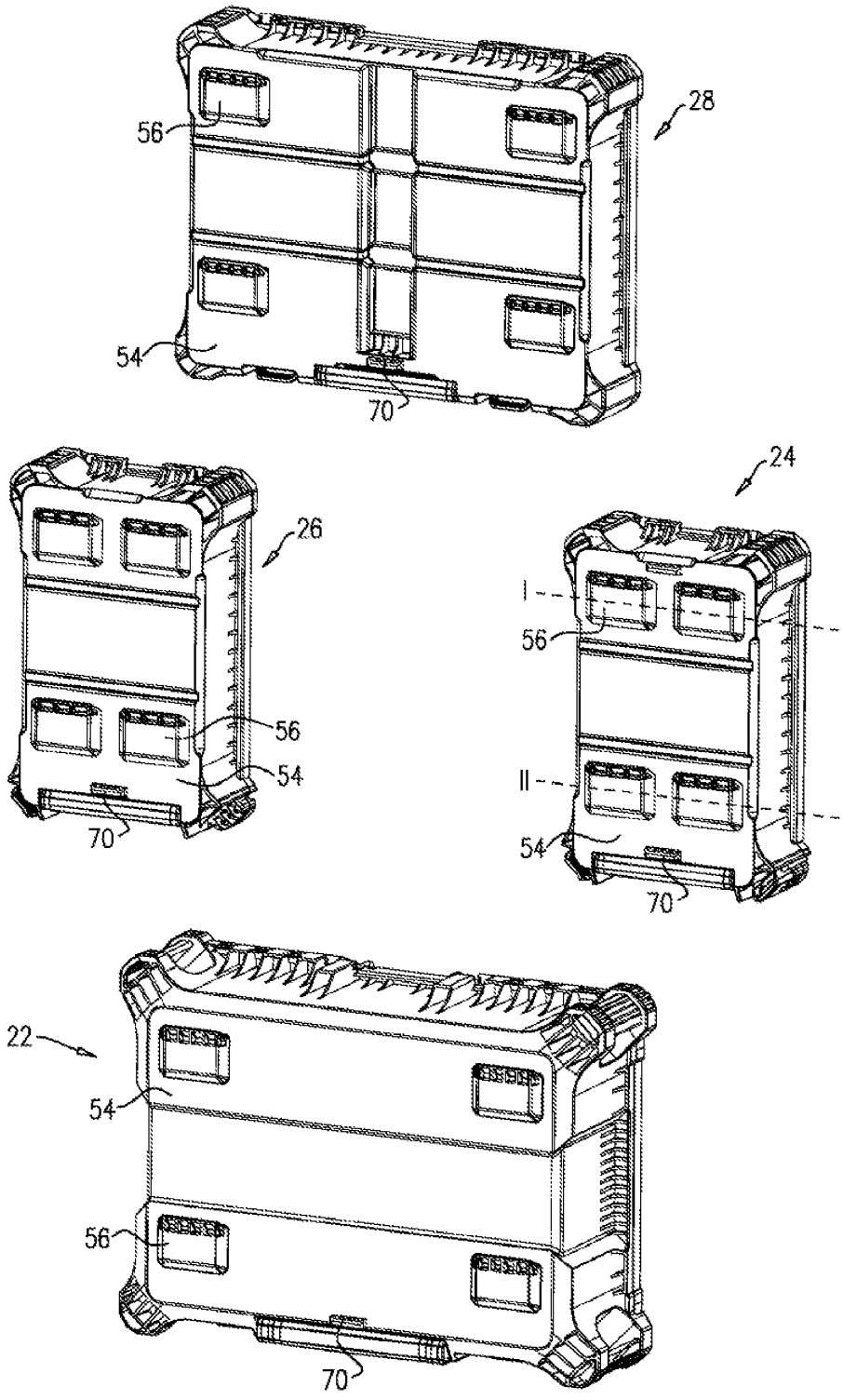


FIG. 1D

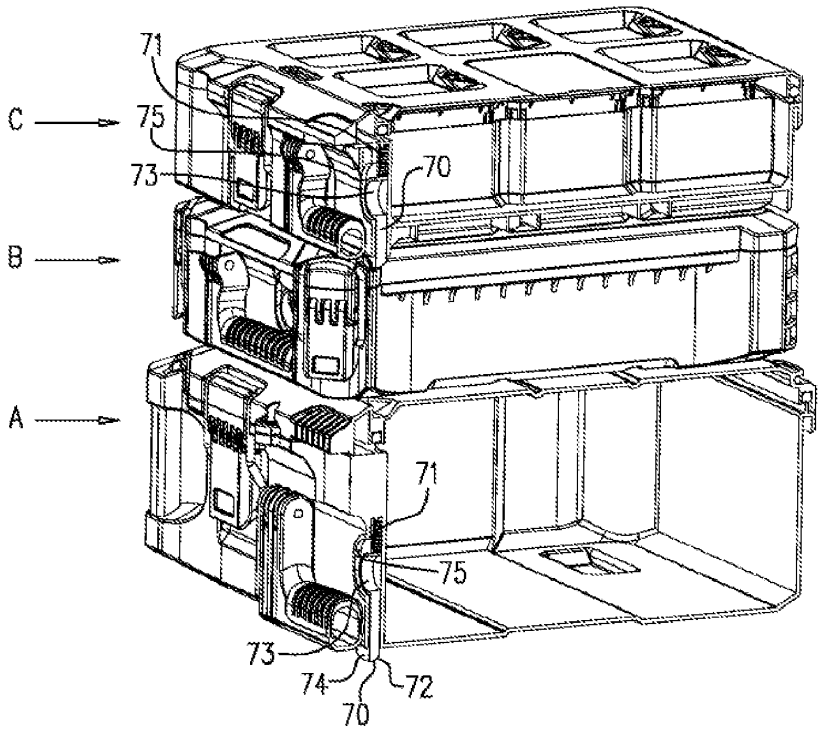


FIG. 2A

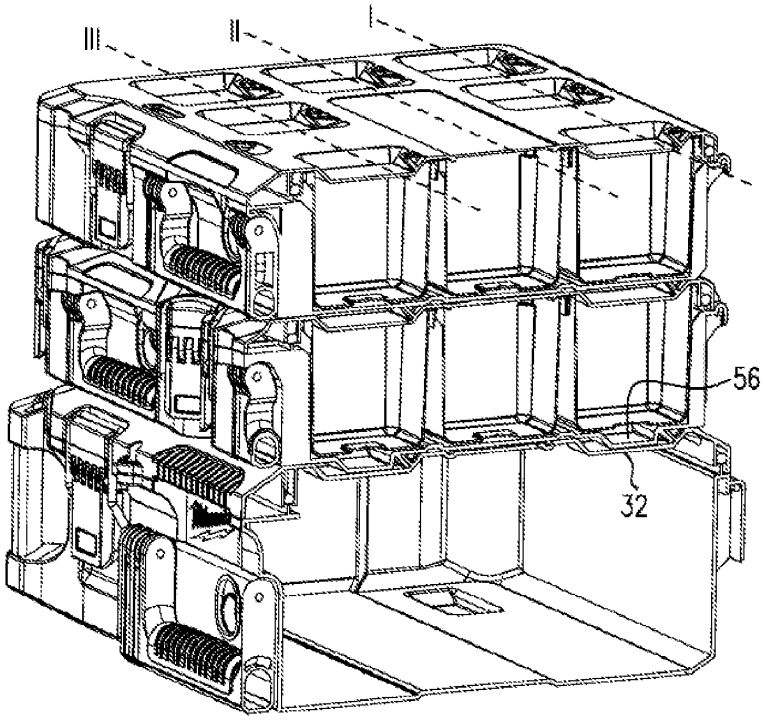


FIG. 2B

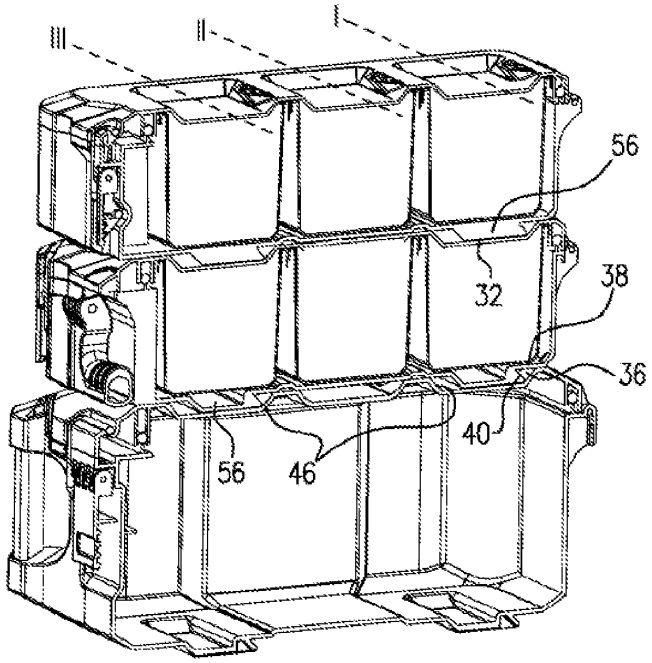


FIG. 2C

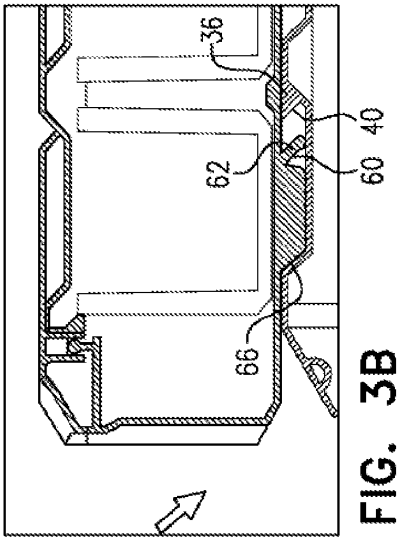


FIG. 3B

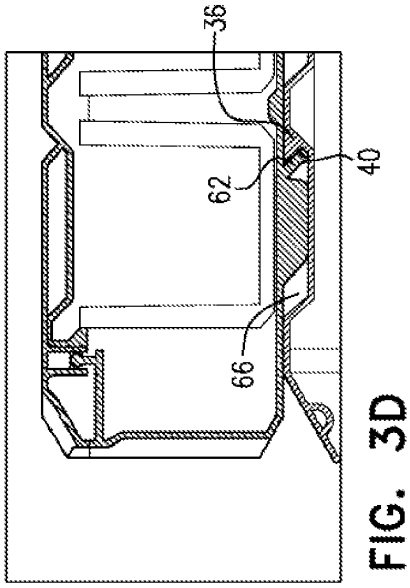


FIG. 3D

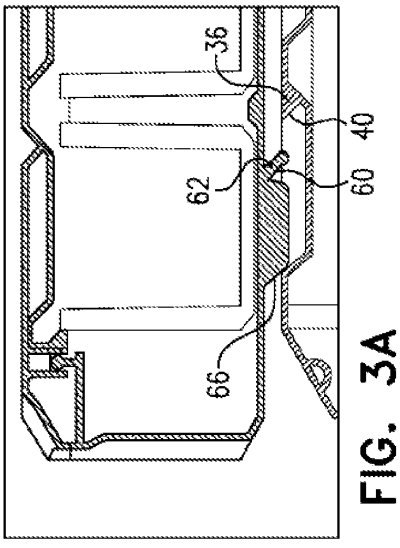


FIG. 3A

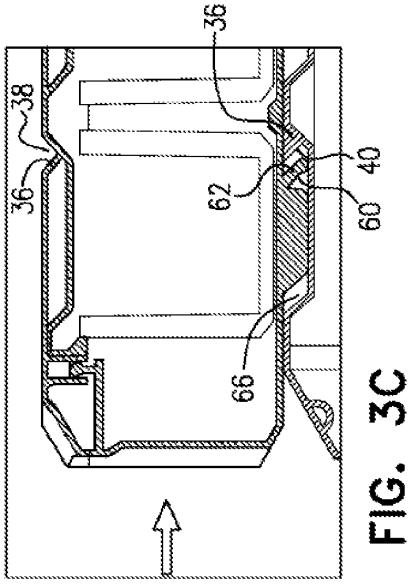


FIG. 3C

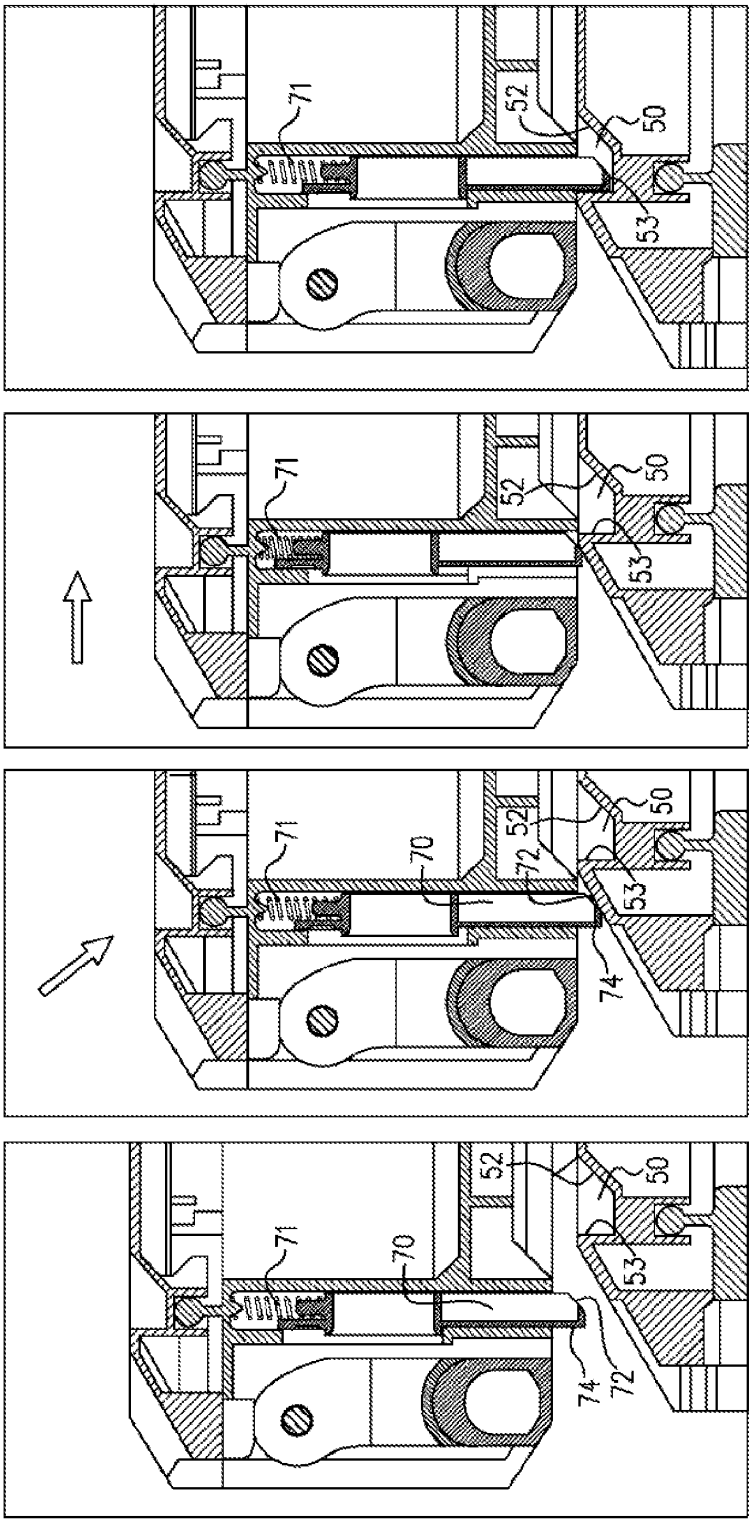


FIG. 4D

FIG. 4C

FIG. 4B

FIG. 4A

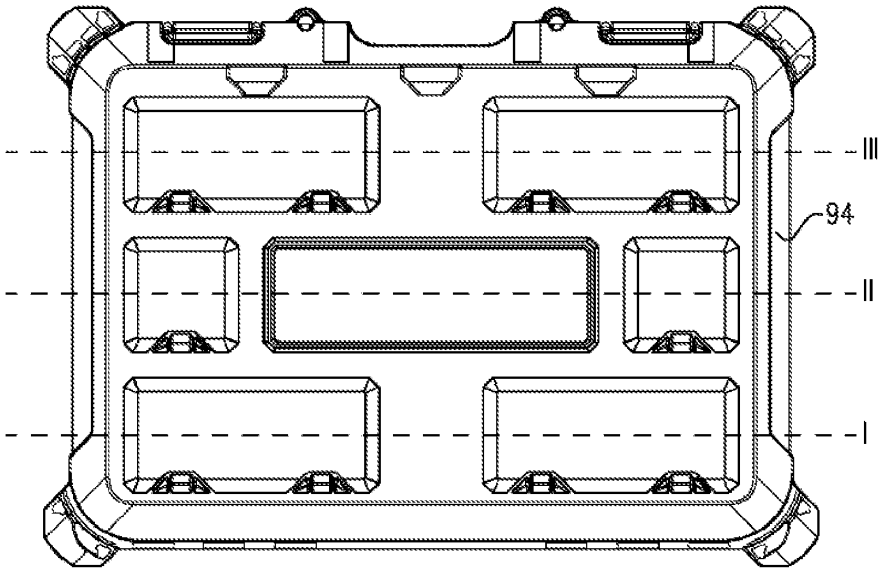


FIG. 5A

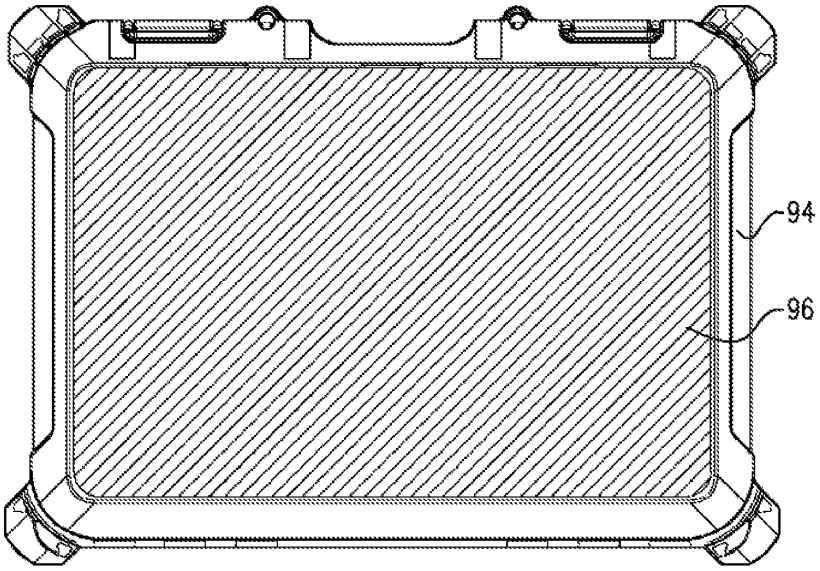


FIG. 5B

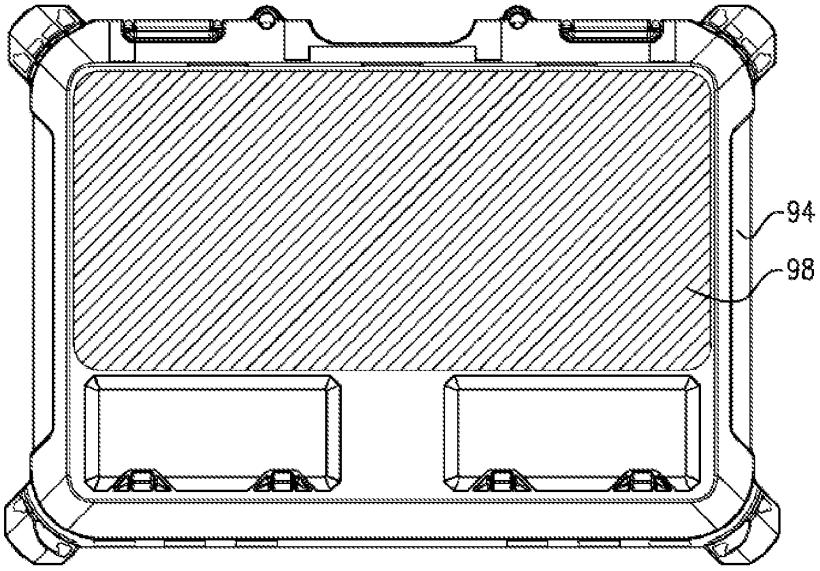


FIG. 5C

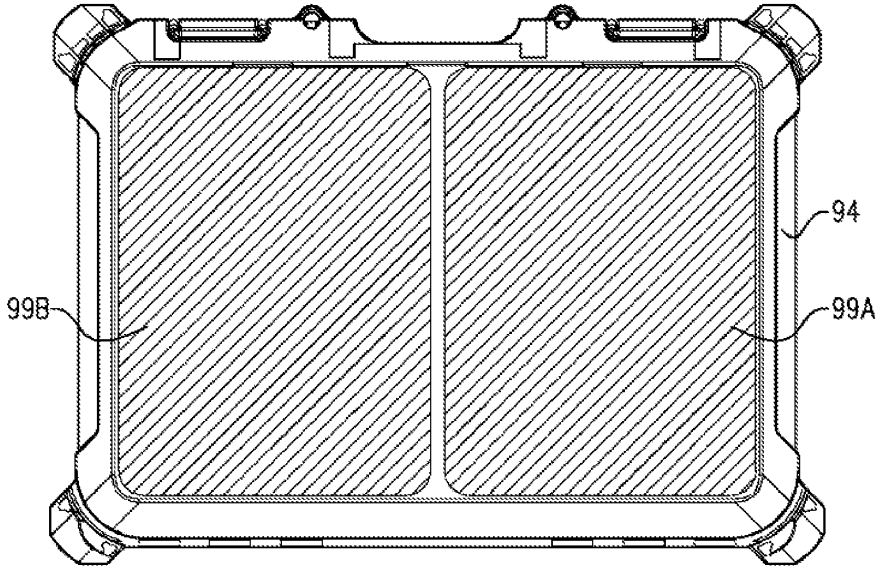


FIG. 5D

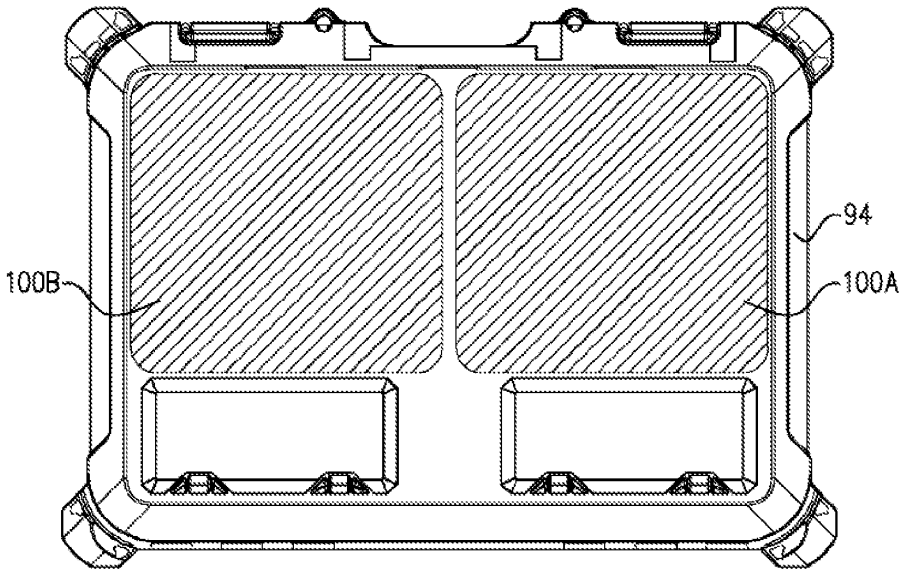


FIG. 5E

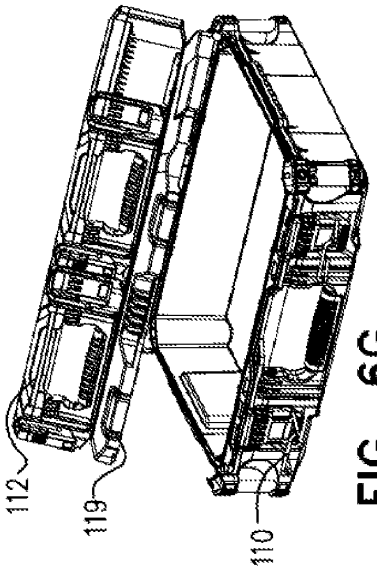


FIG. 6G

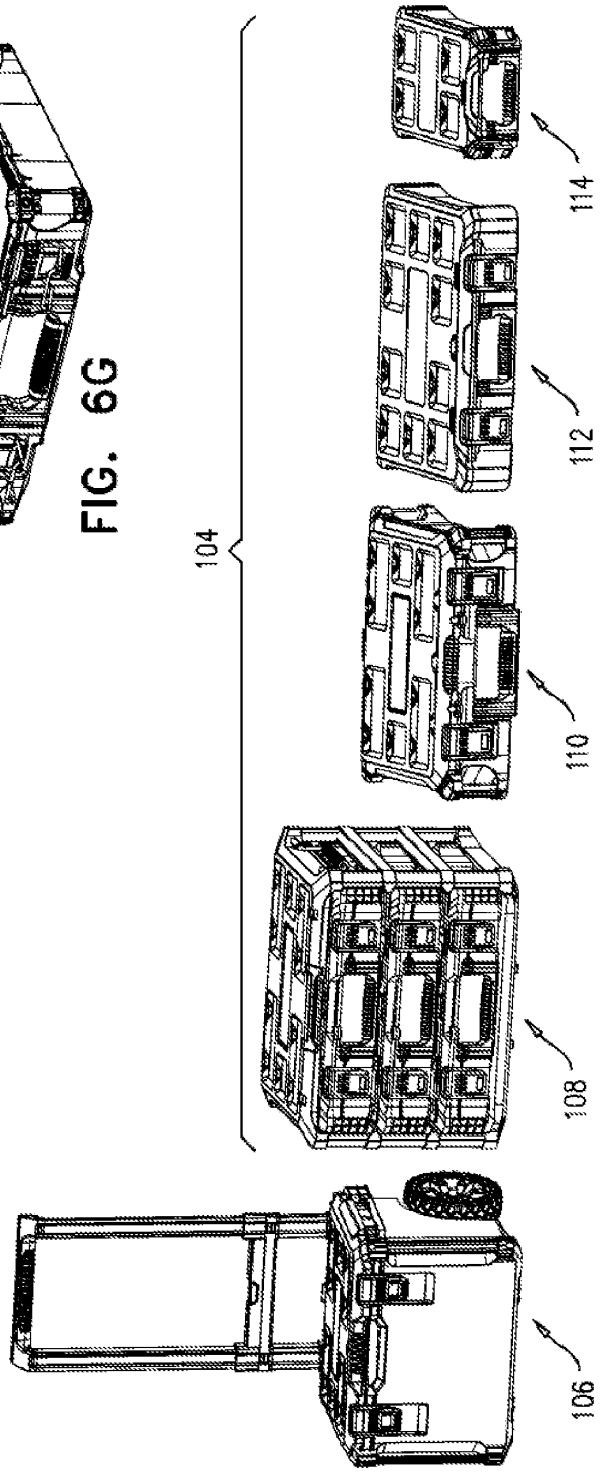


FIG. 6A

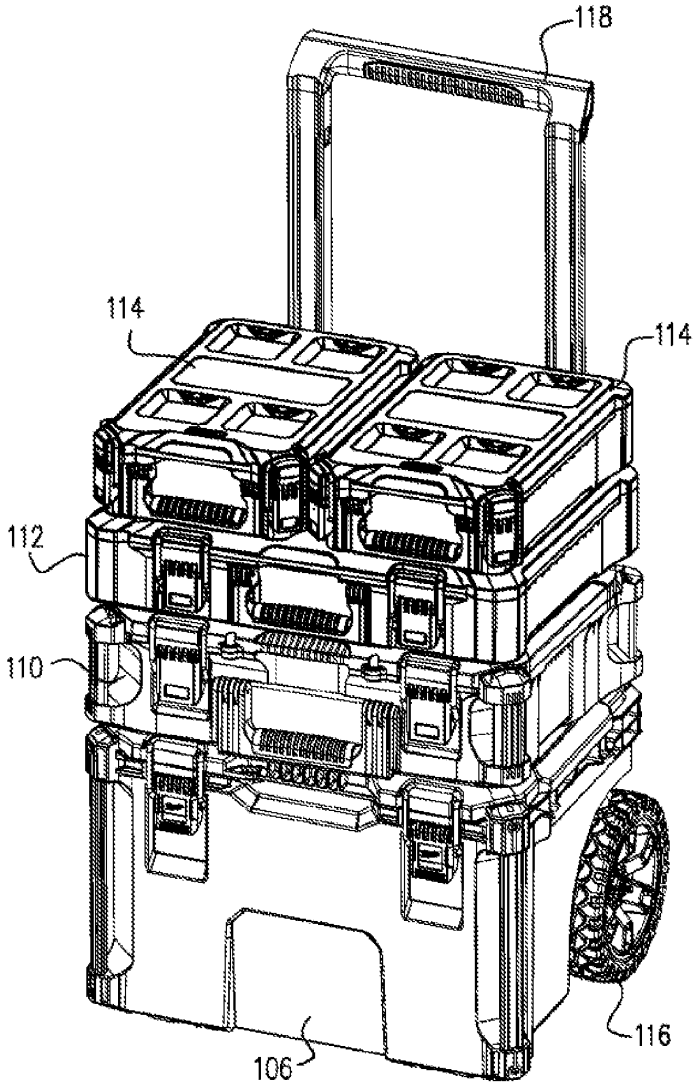


FIG. 6B

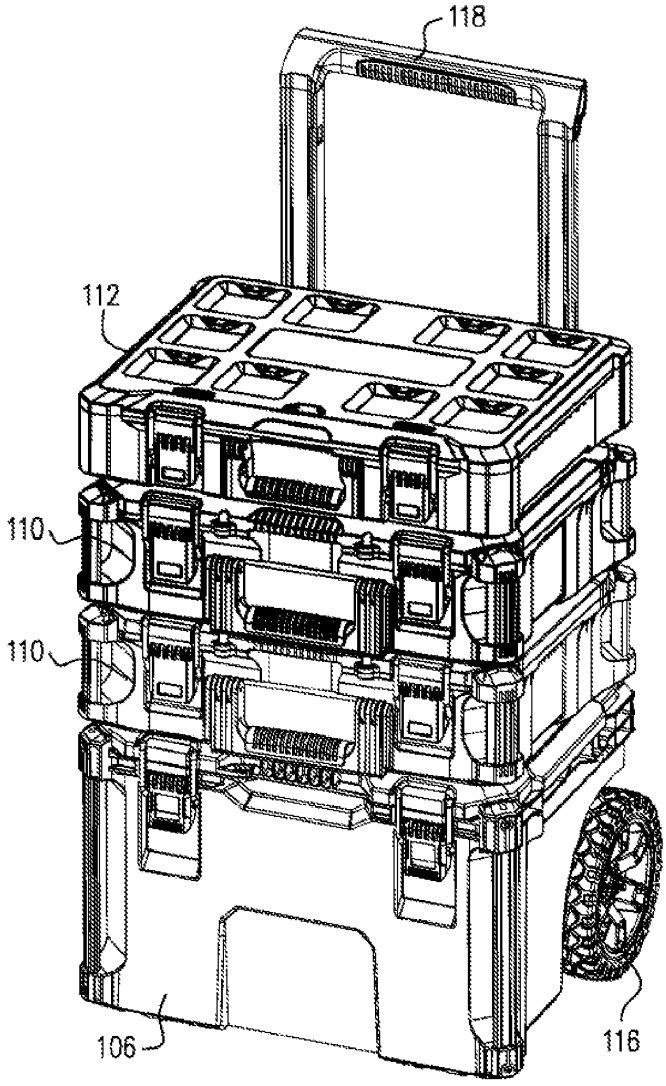


FIG. 6C

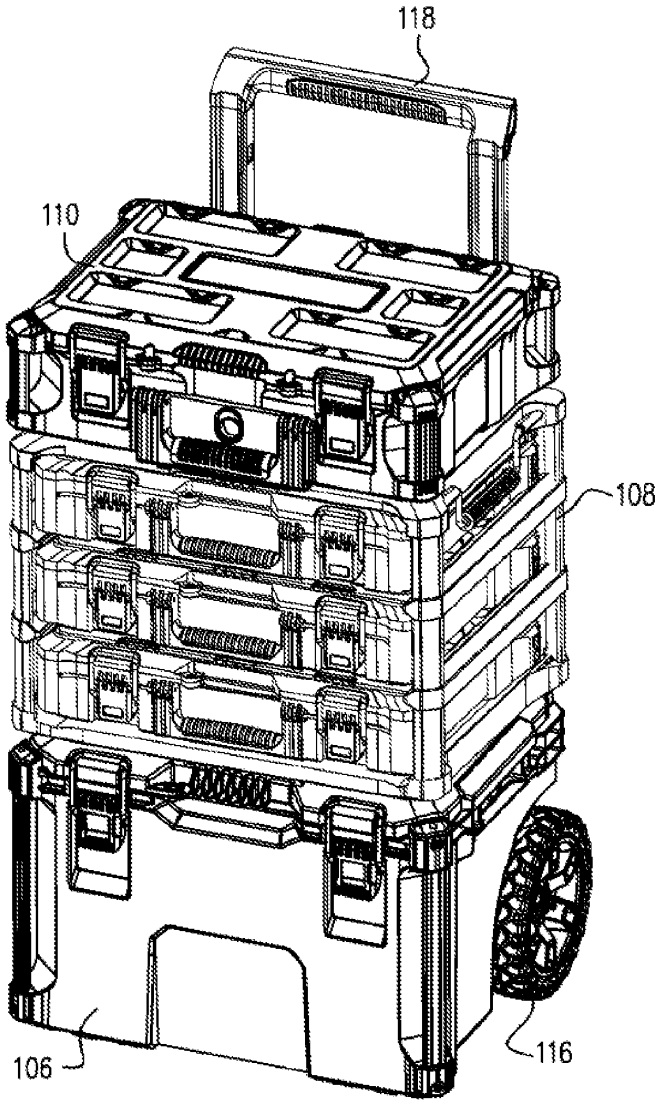


FIG. 6D

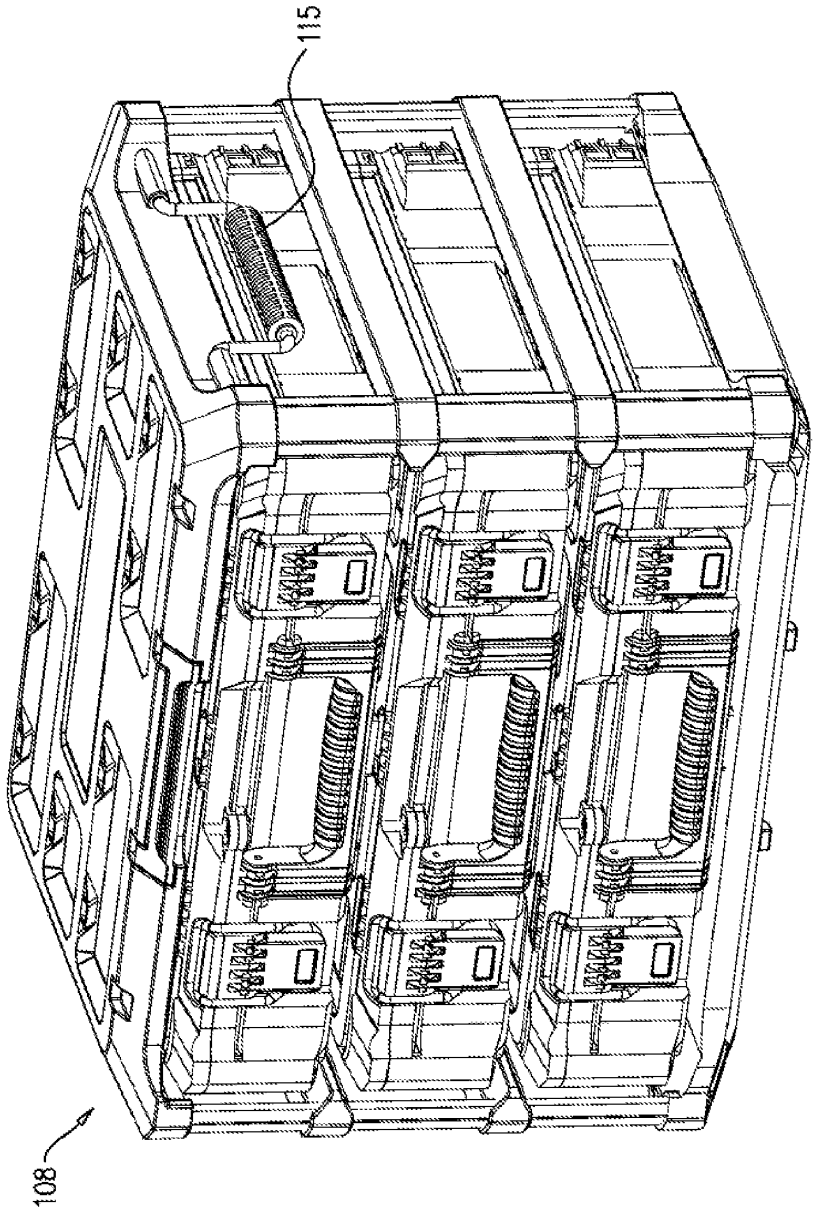


FIG. 6E

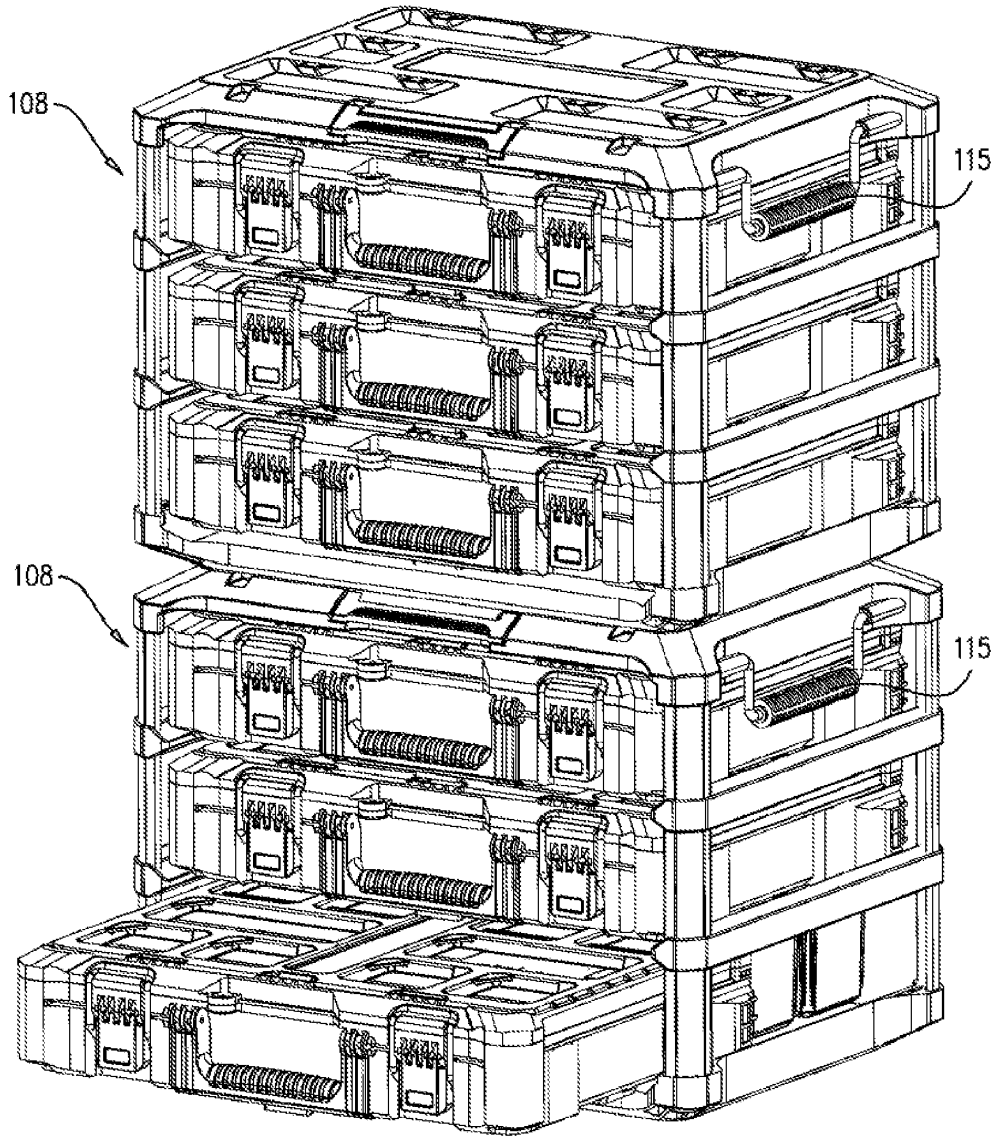


FIG. 6F

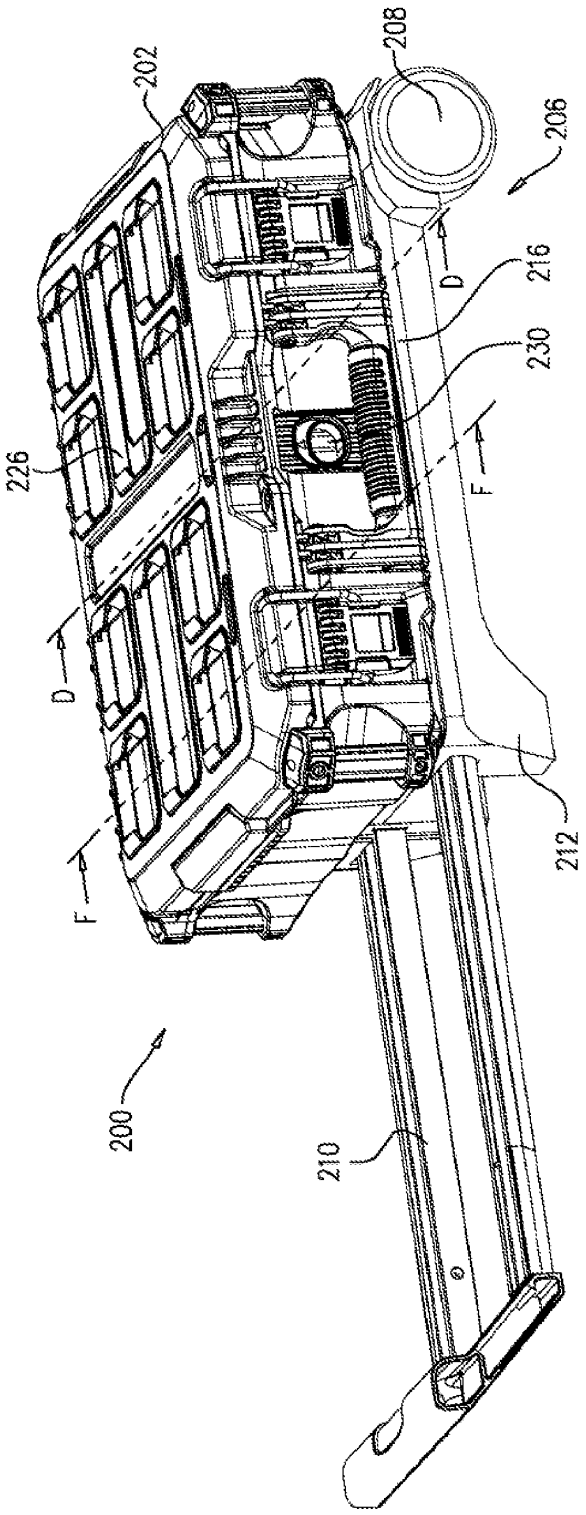


FIG. 7A

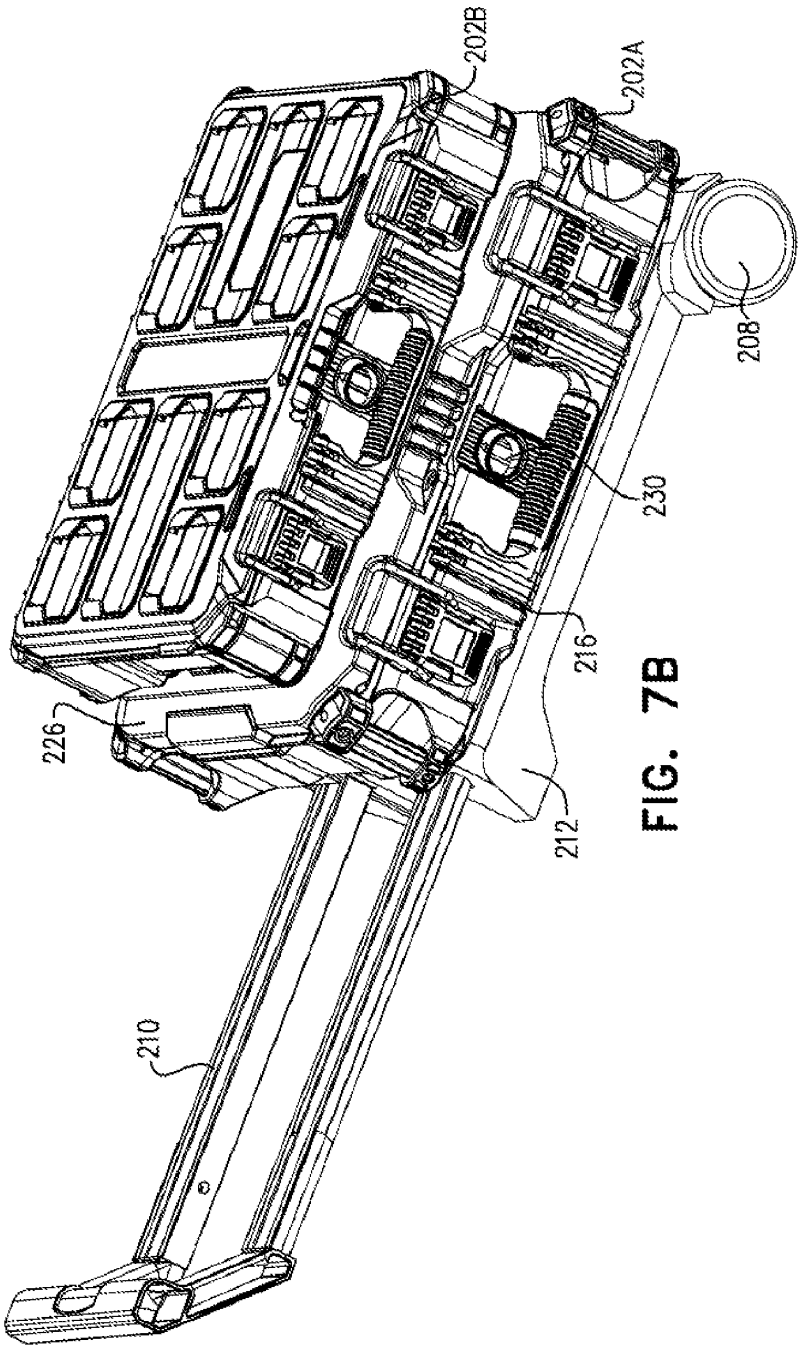


FIG. 7B

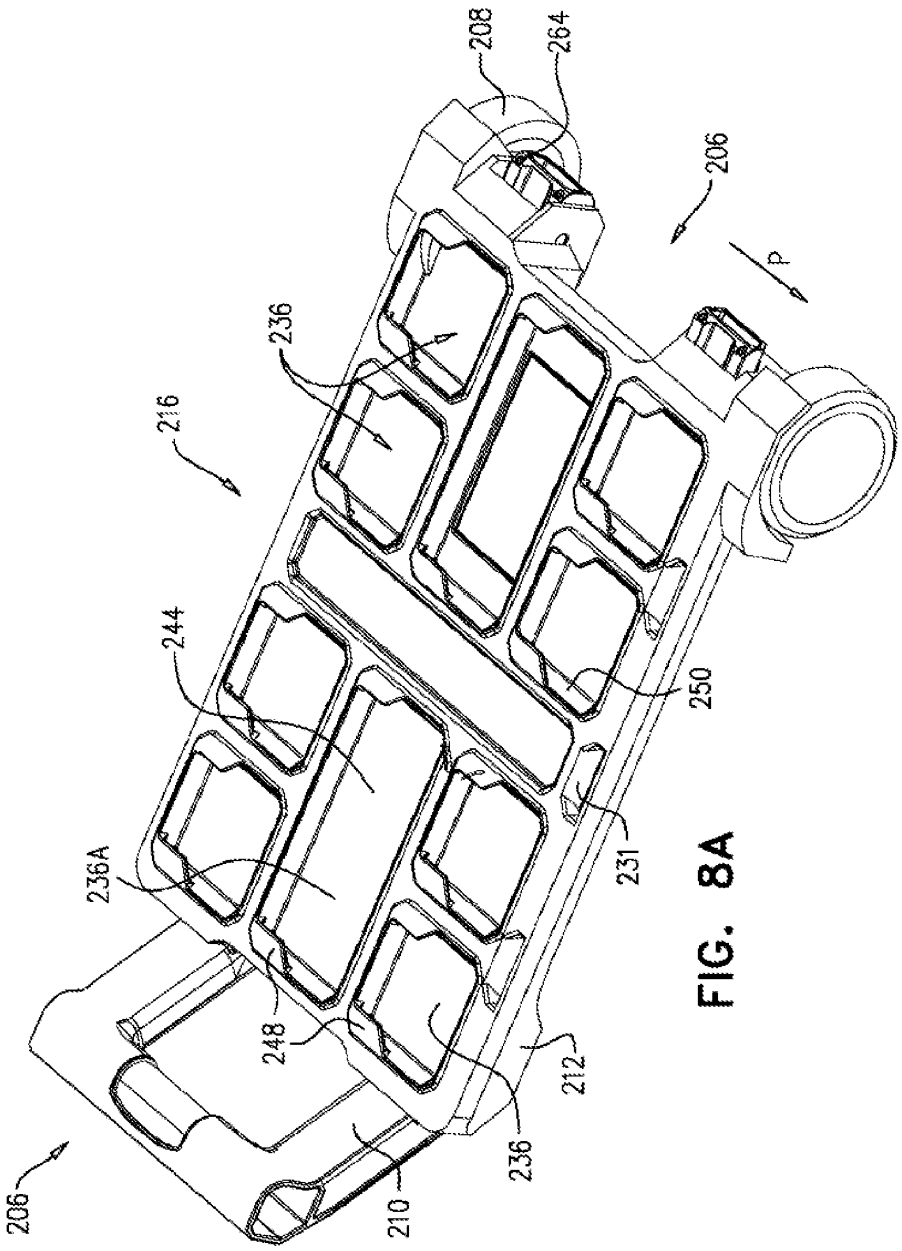


FIG. 8A

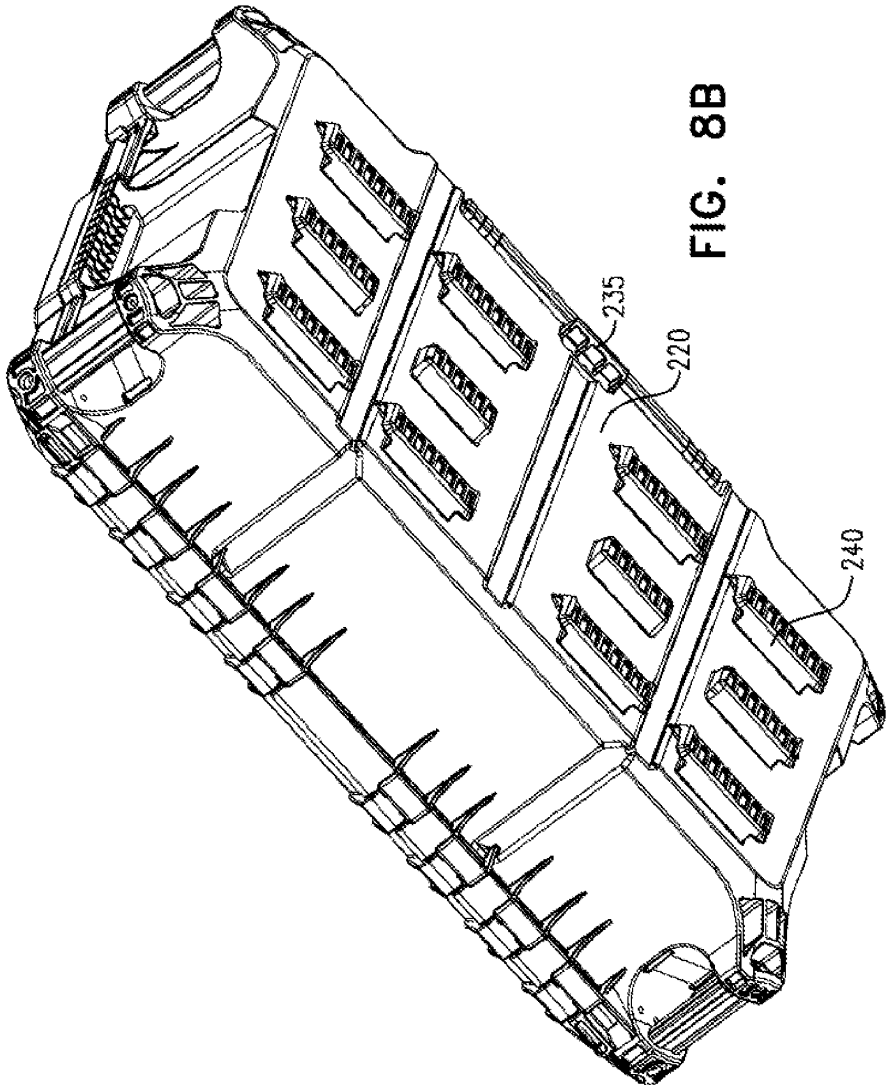


FIG. 8B

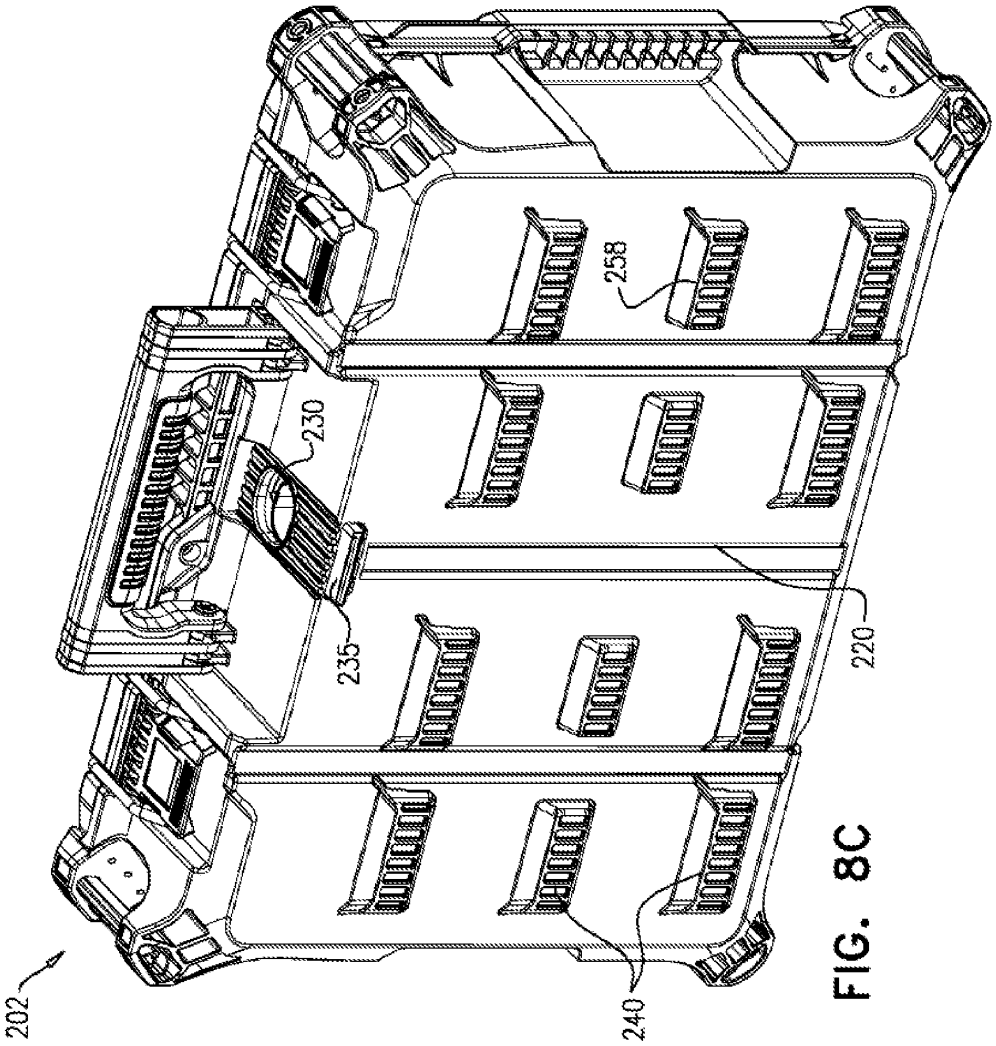


FIG. 8C

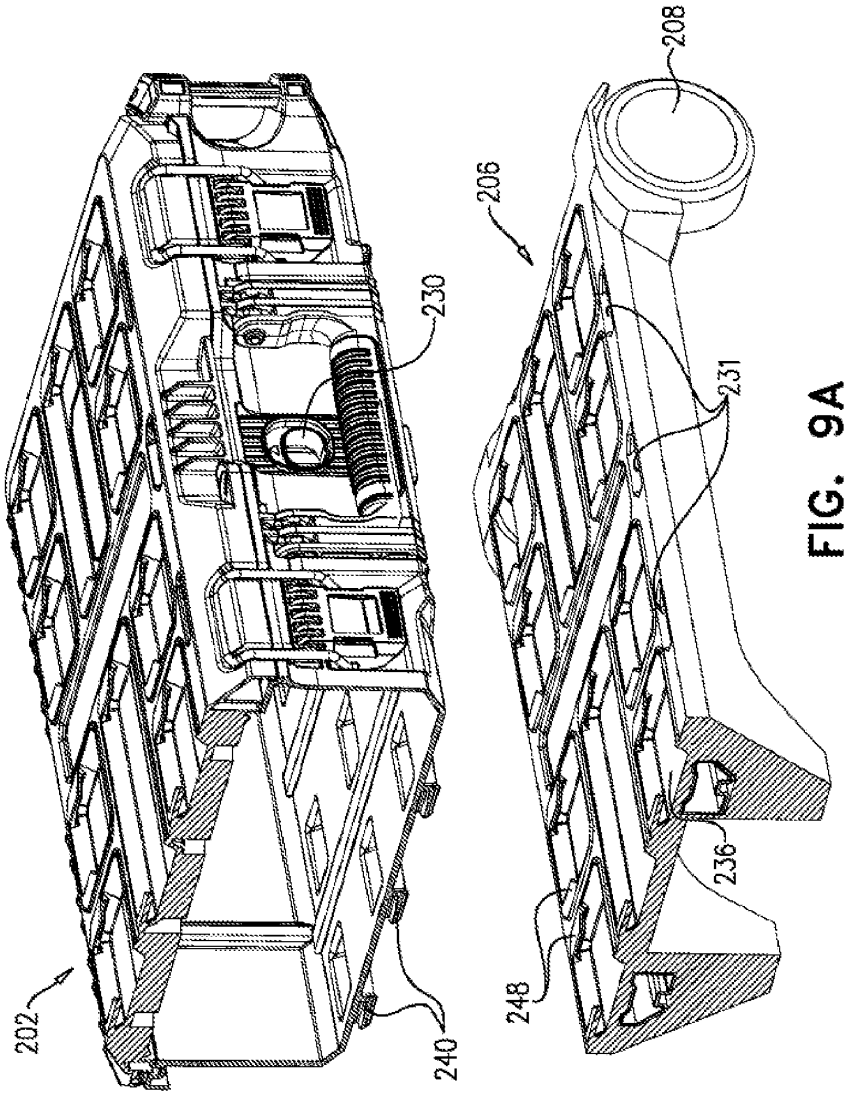


FIG. 9A

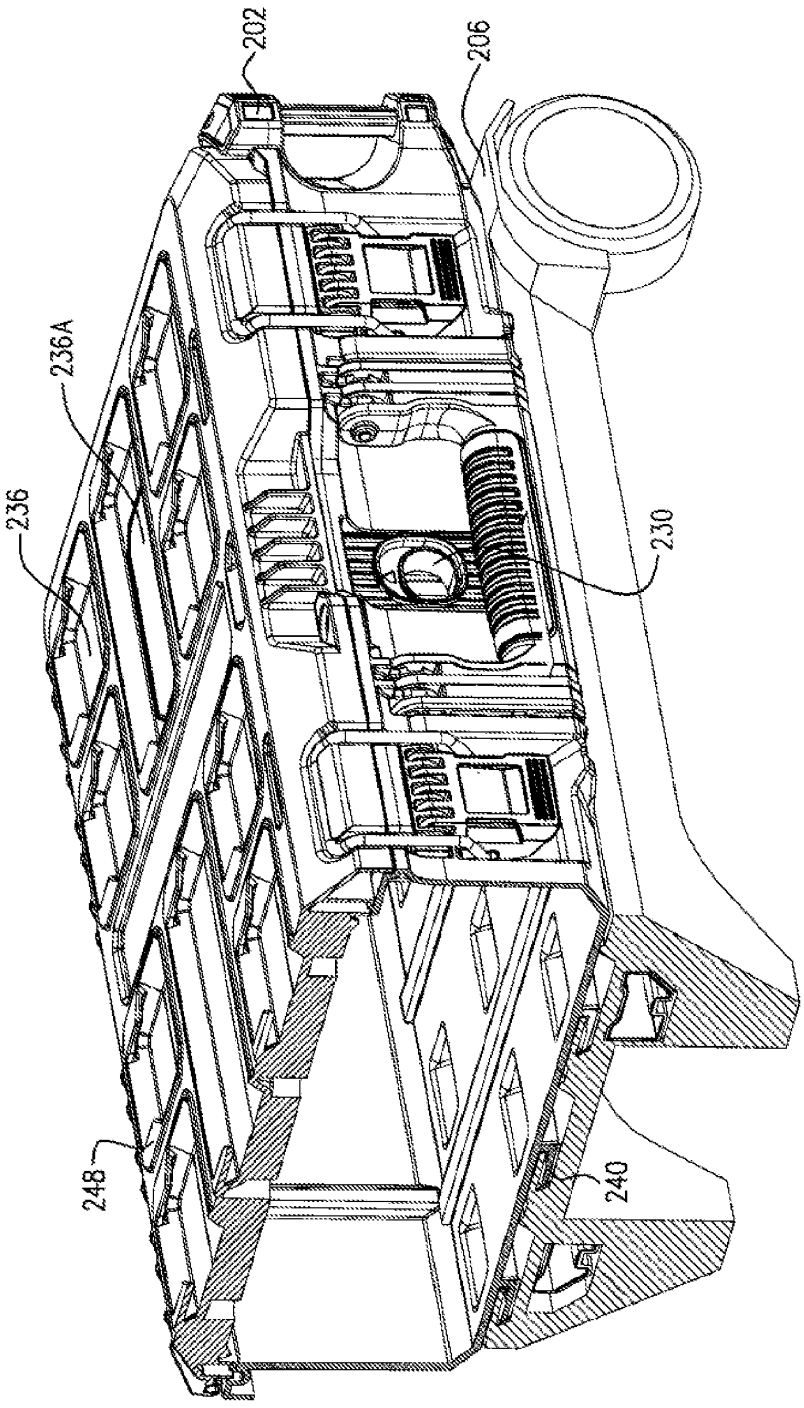


FIG. 9B

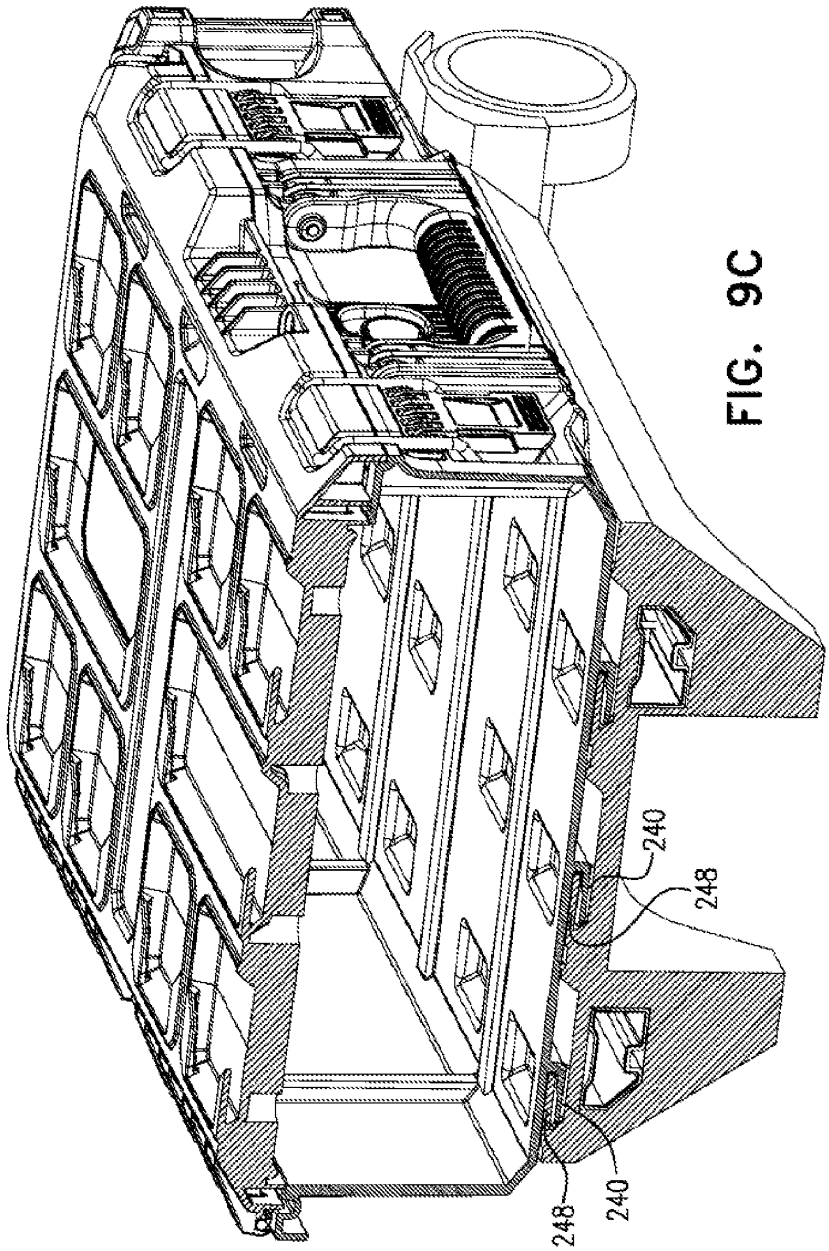


FIG. 9C

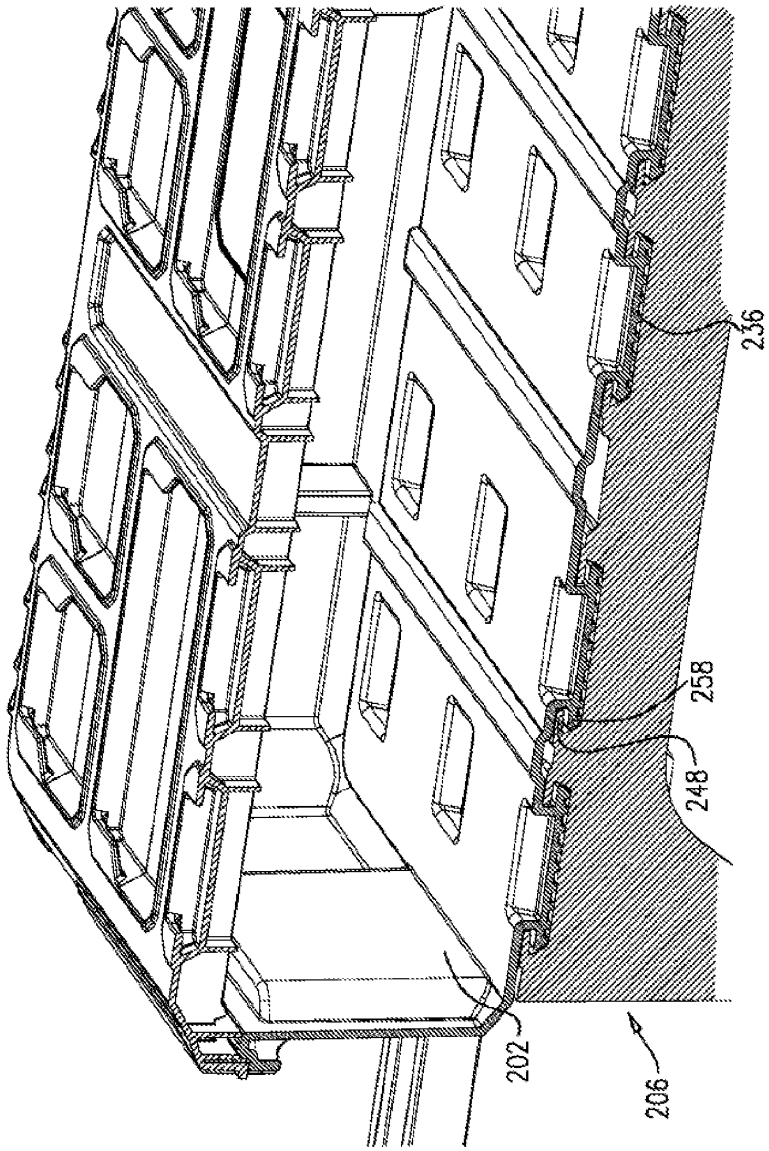


FIG. 9D

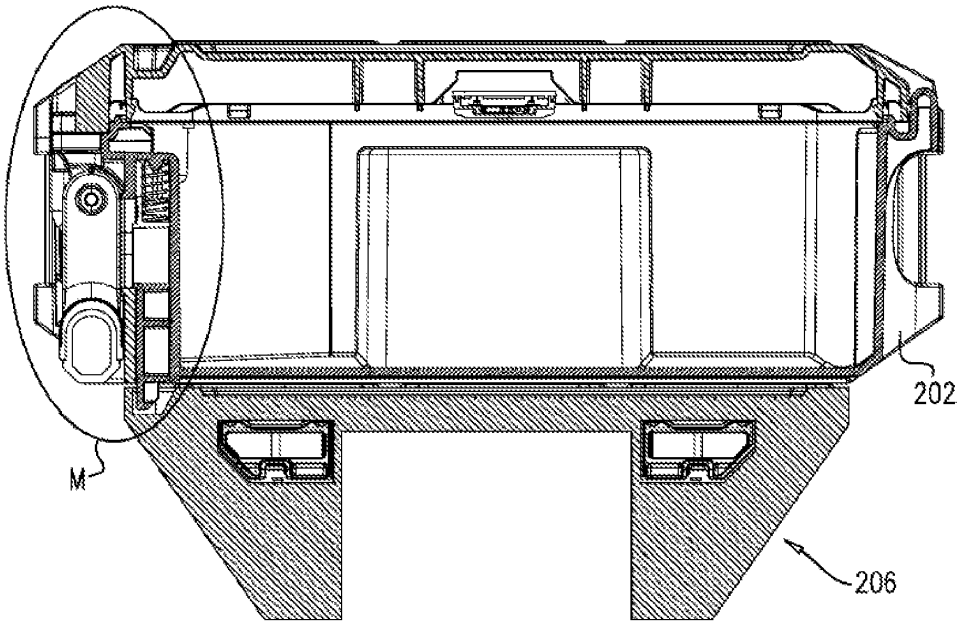


FIG. 10A

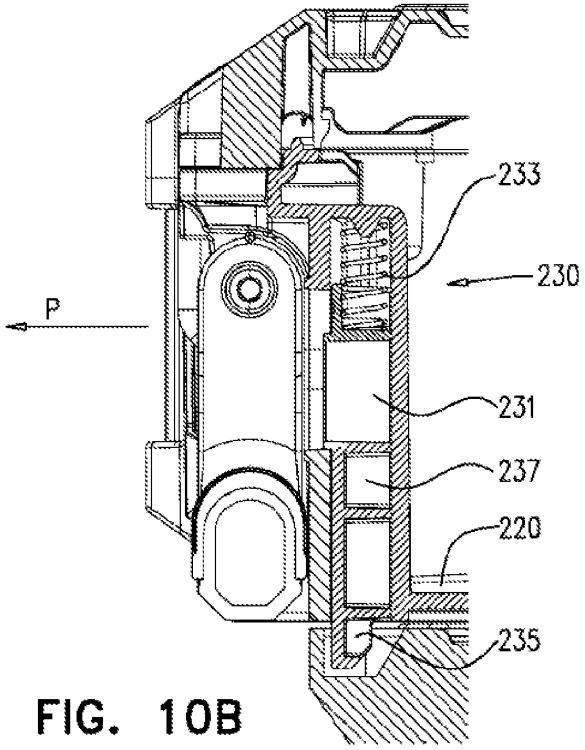


FIG. 10B

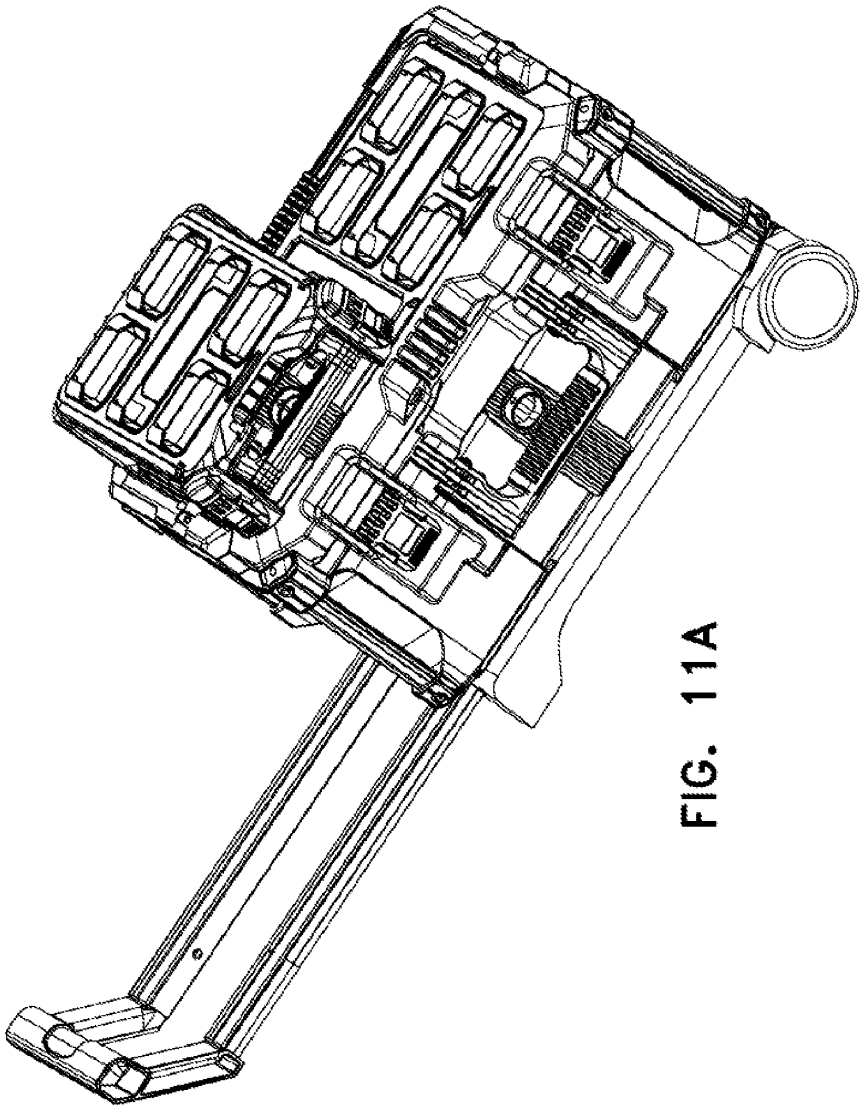


FIG. 11A

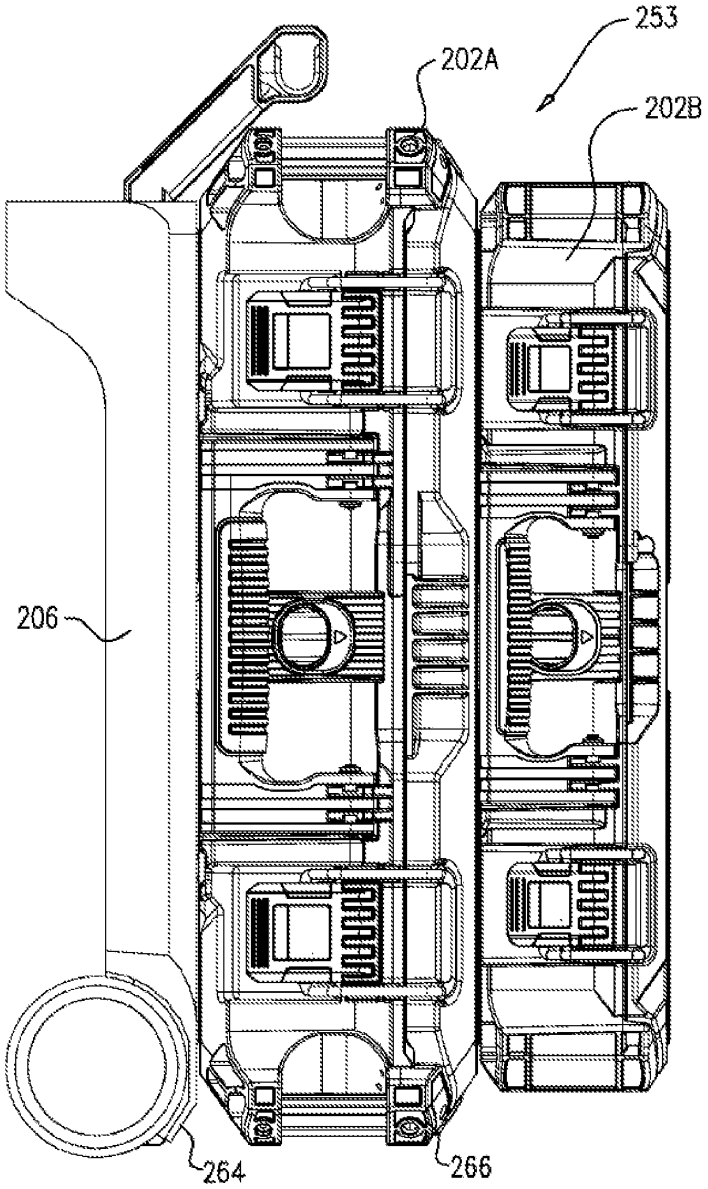


FIG. 11B

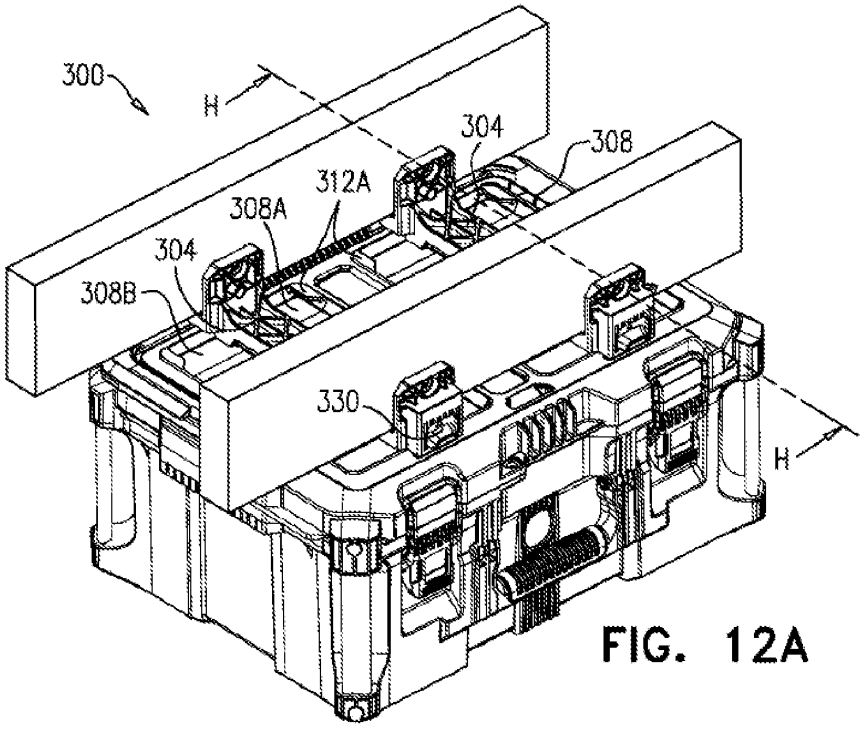


FIG. 12A

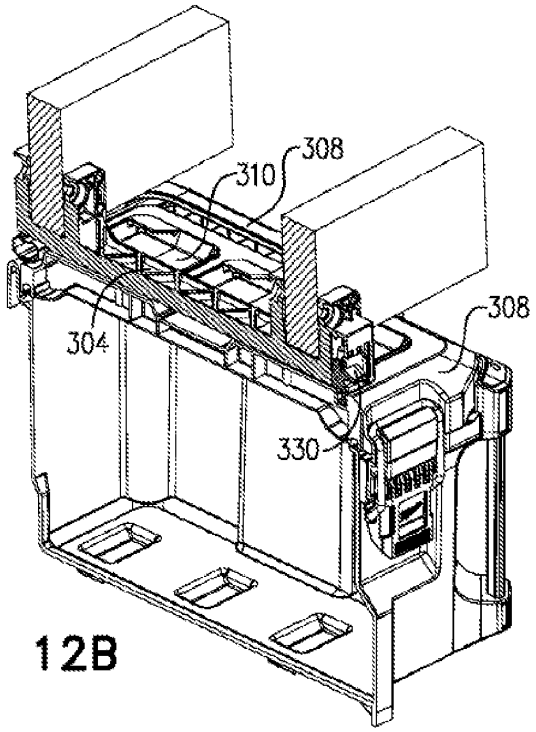
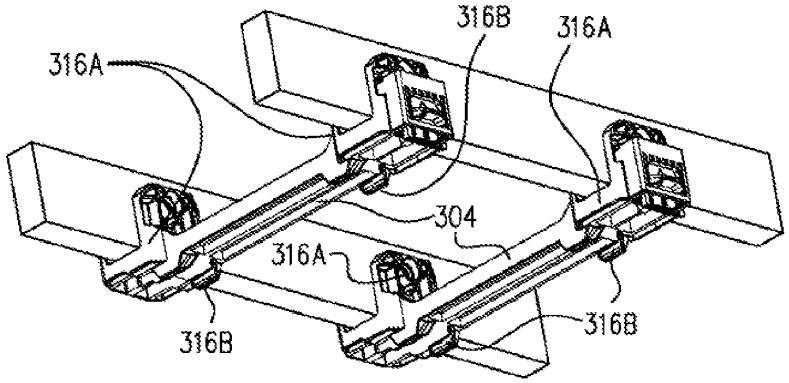


FIG. 12B


316B
316A
316A
304
316A
316B
316B

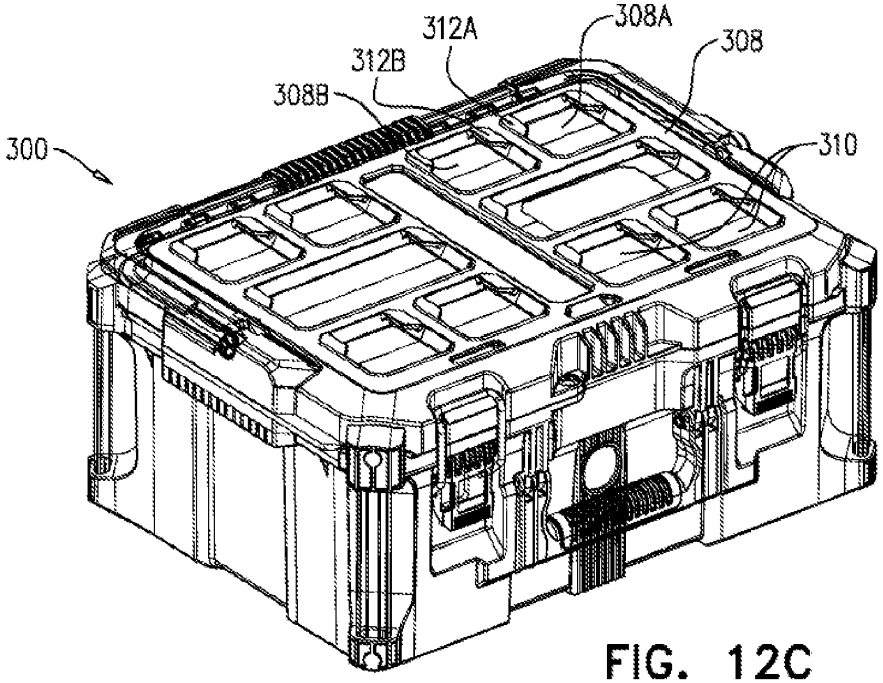

312A
308A
312B
308
308B
300
310

FIG. 12C

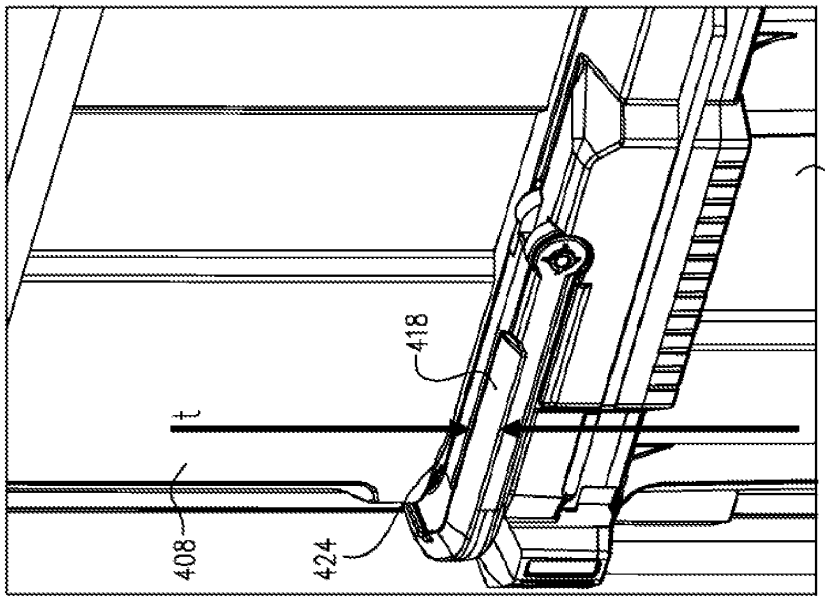


FIG. 13B

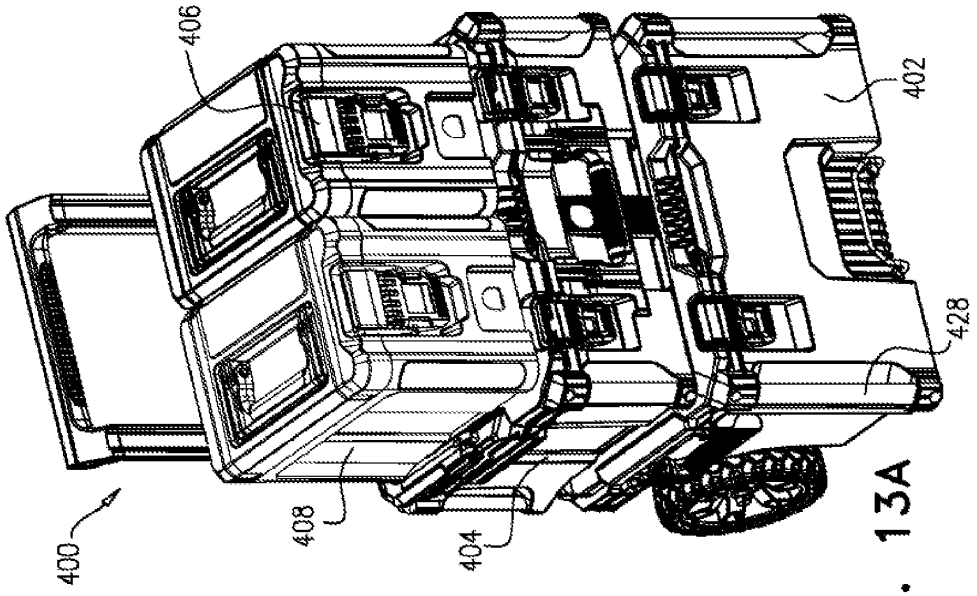


FIG. 13A

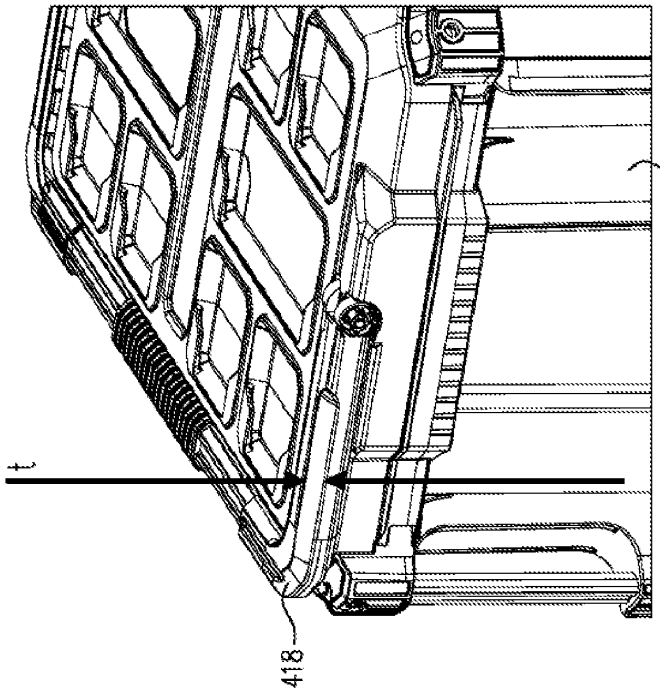


FIG. 13D

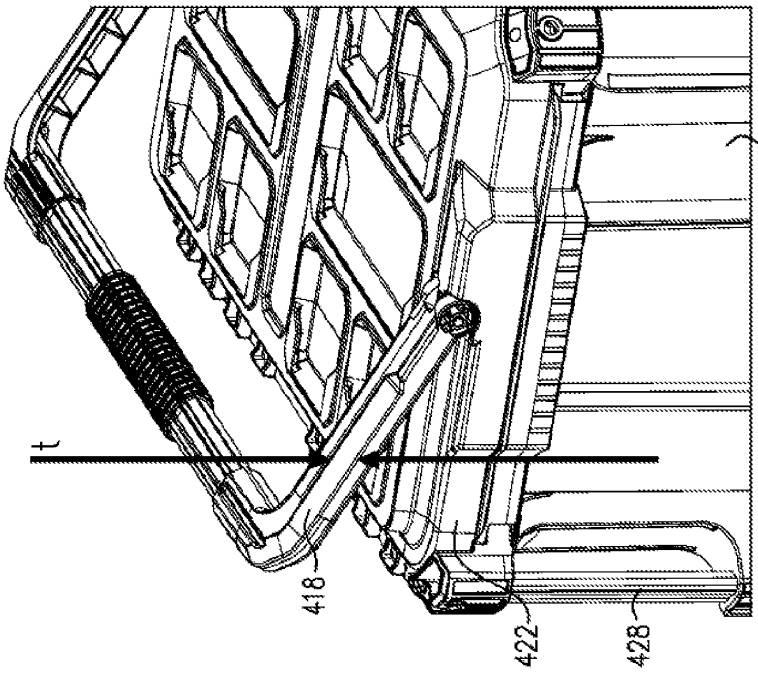


FIG. 13C

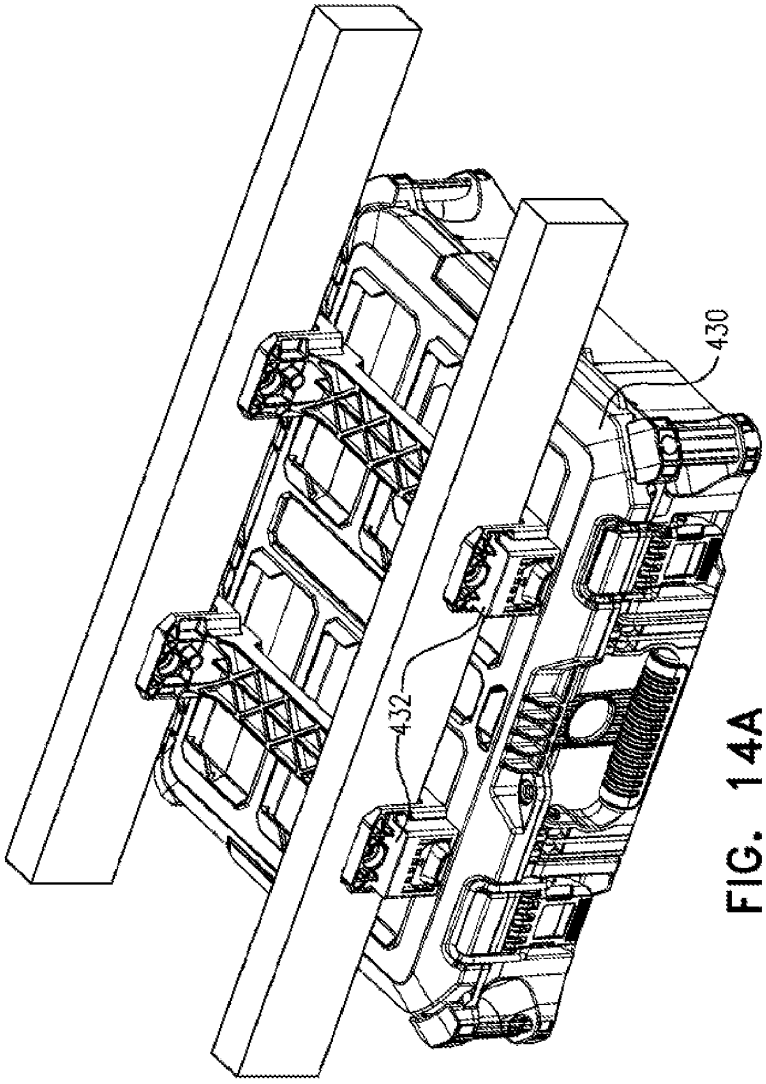


FIG. 14A

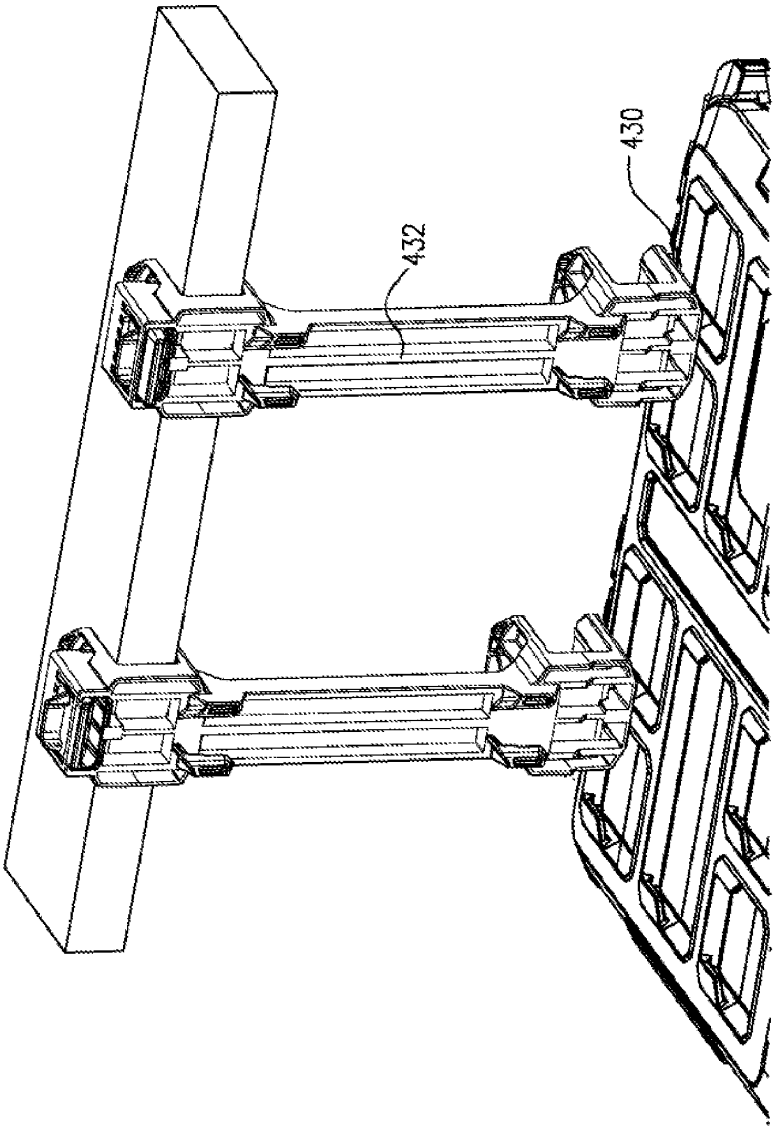


FIG. 14B

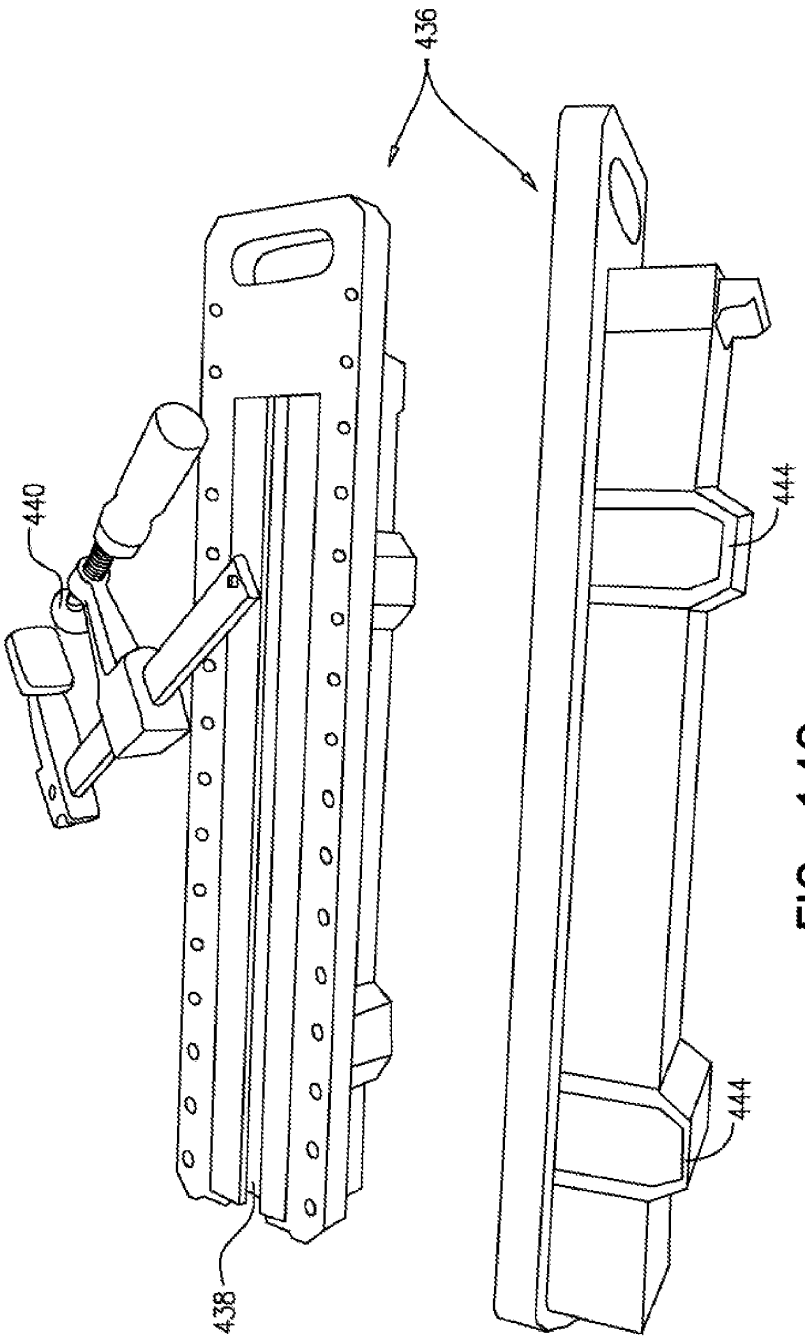


FIG. 14C

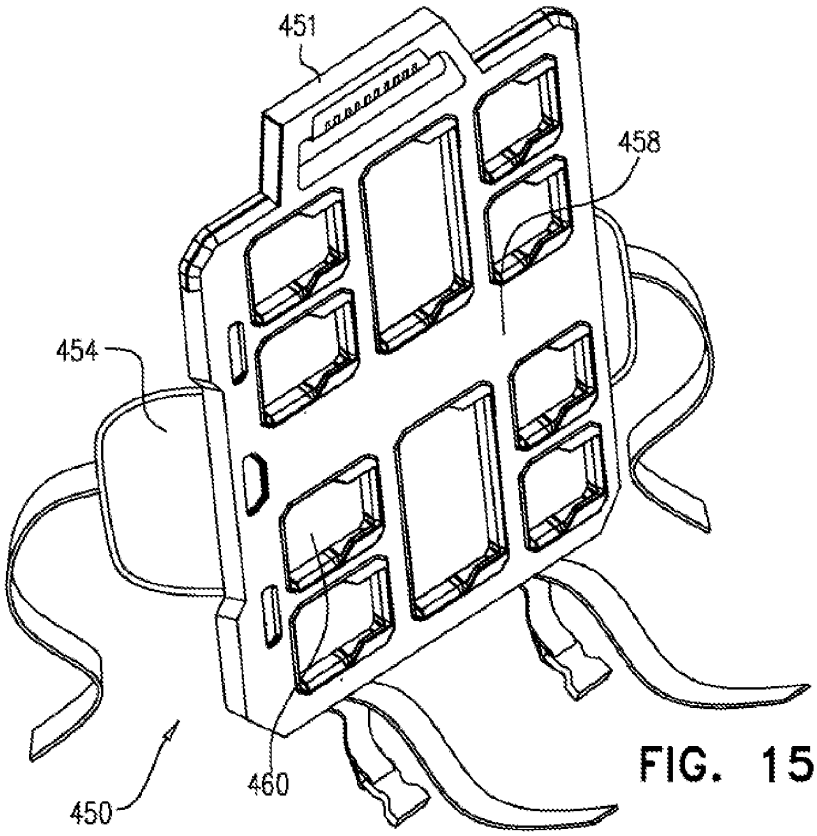


FIG. 15A

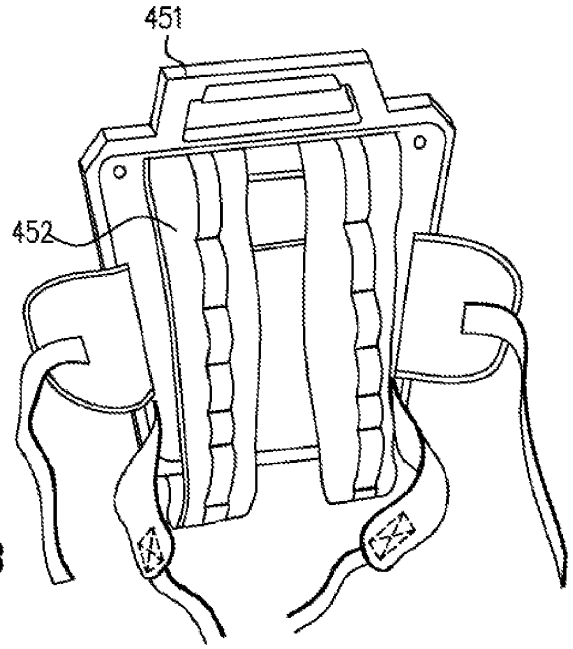


FIG. 15B

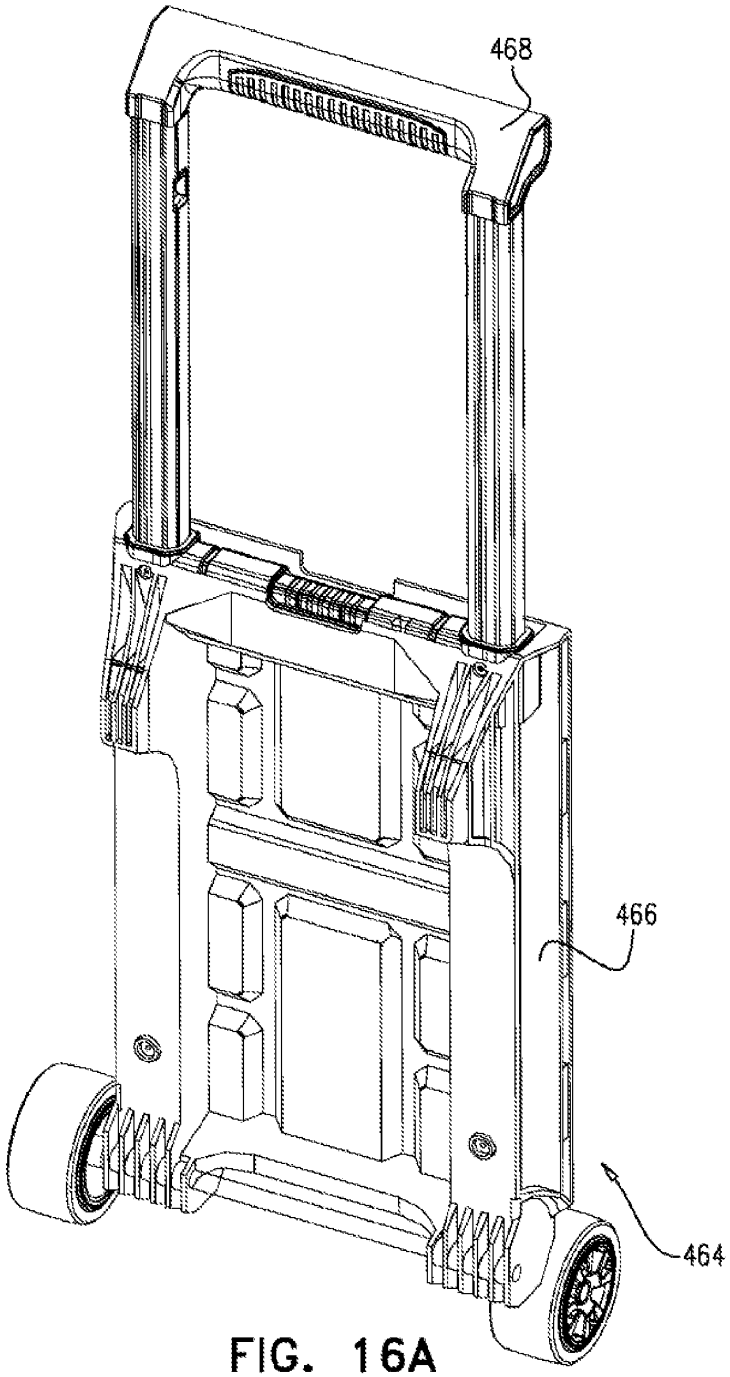


FIG. 16A

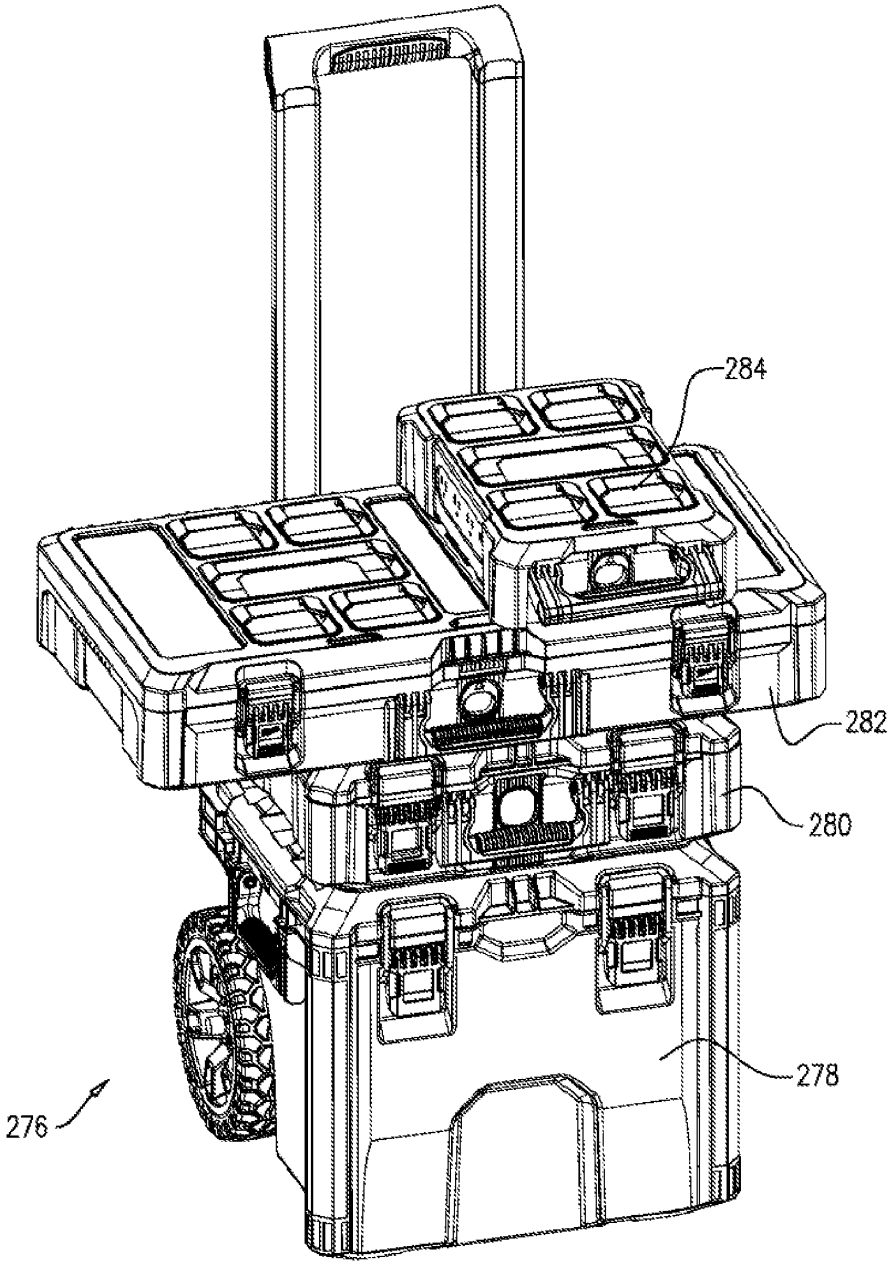


FIG. 16B

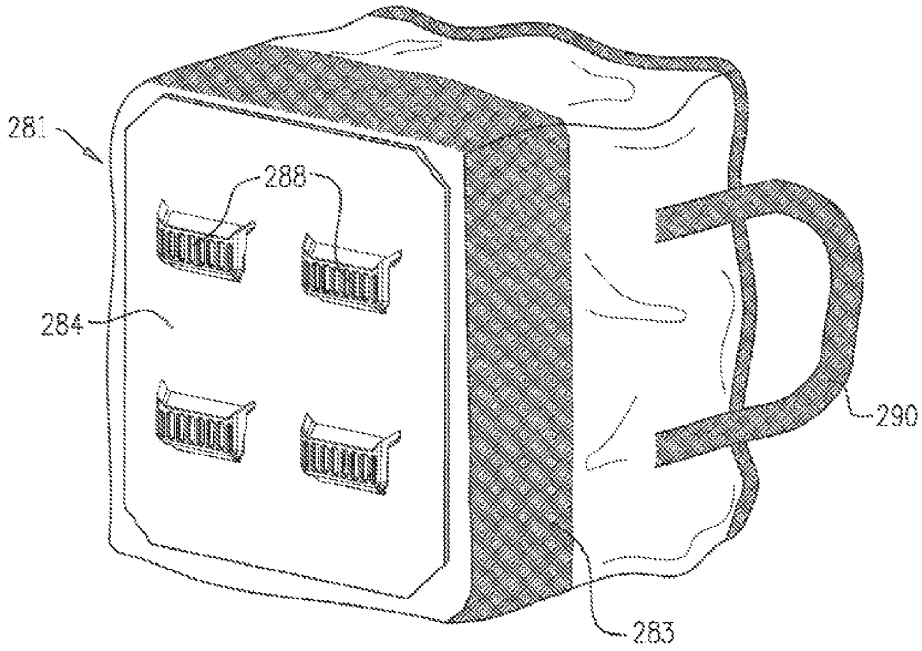


FIG. 17

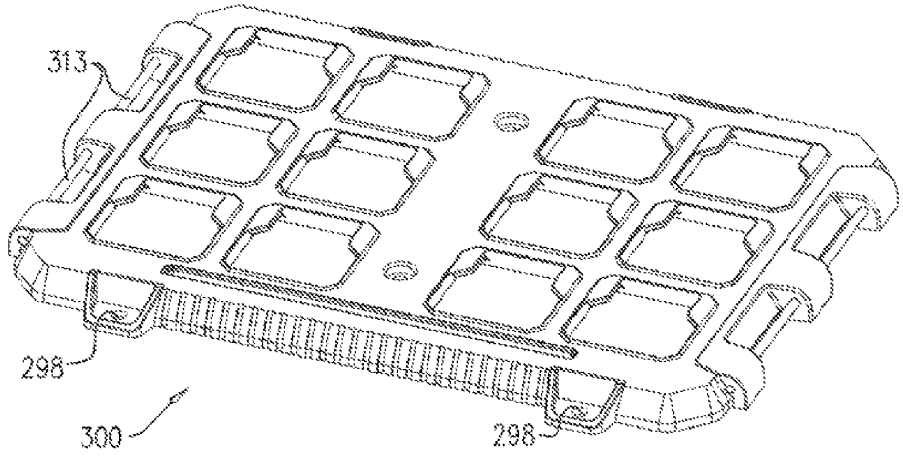


FIG. 18A

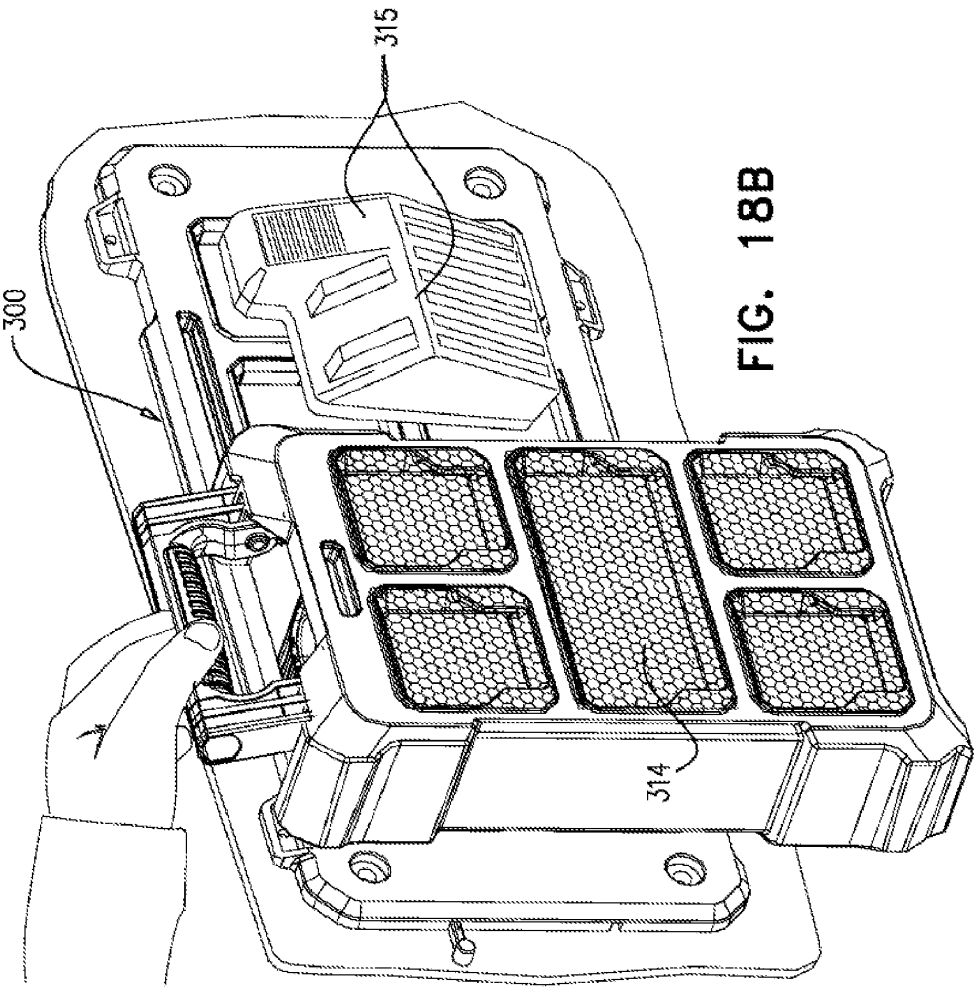


FIG. 18B

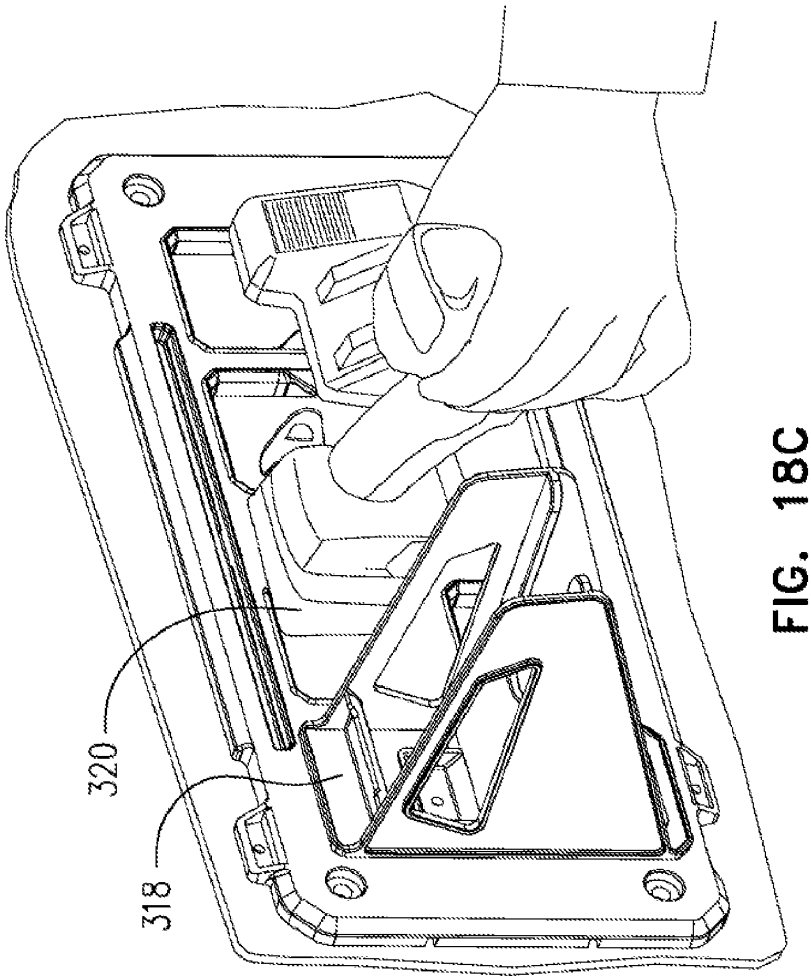


FIG. 18C

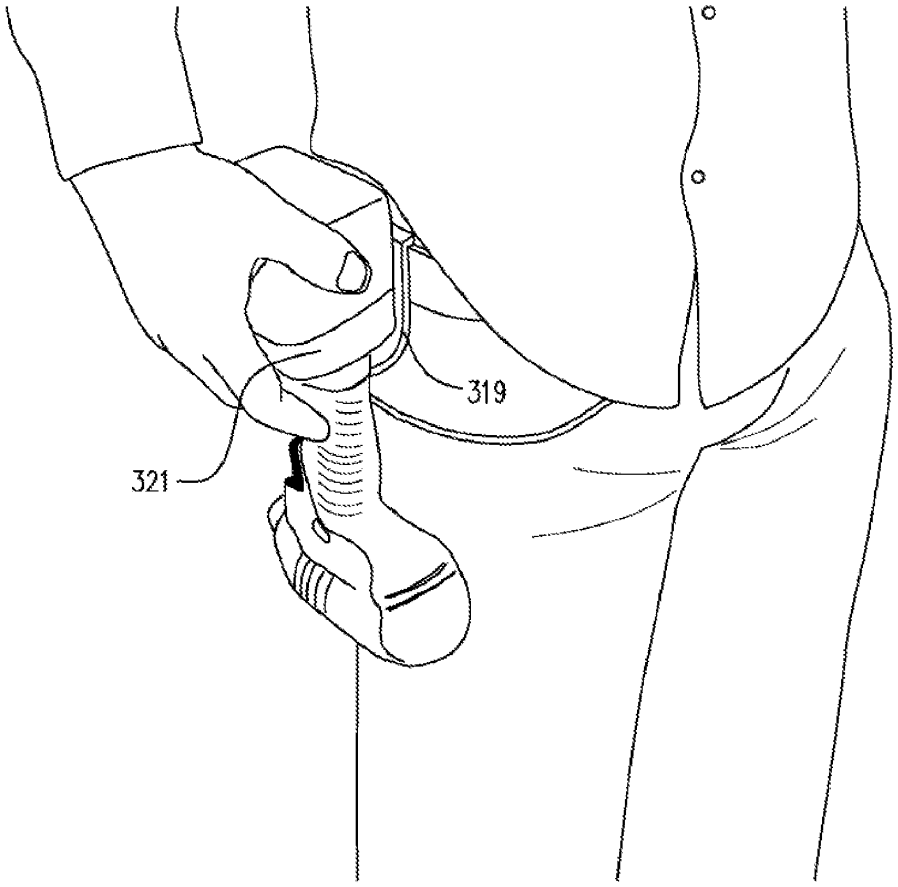
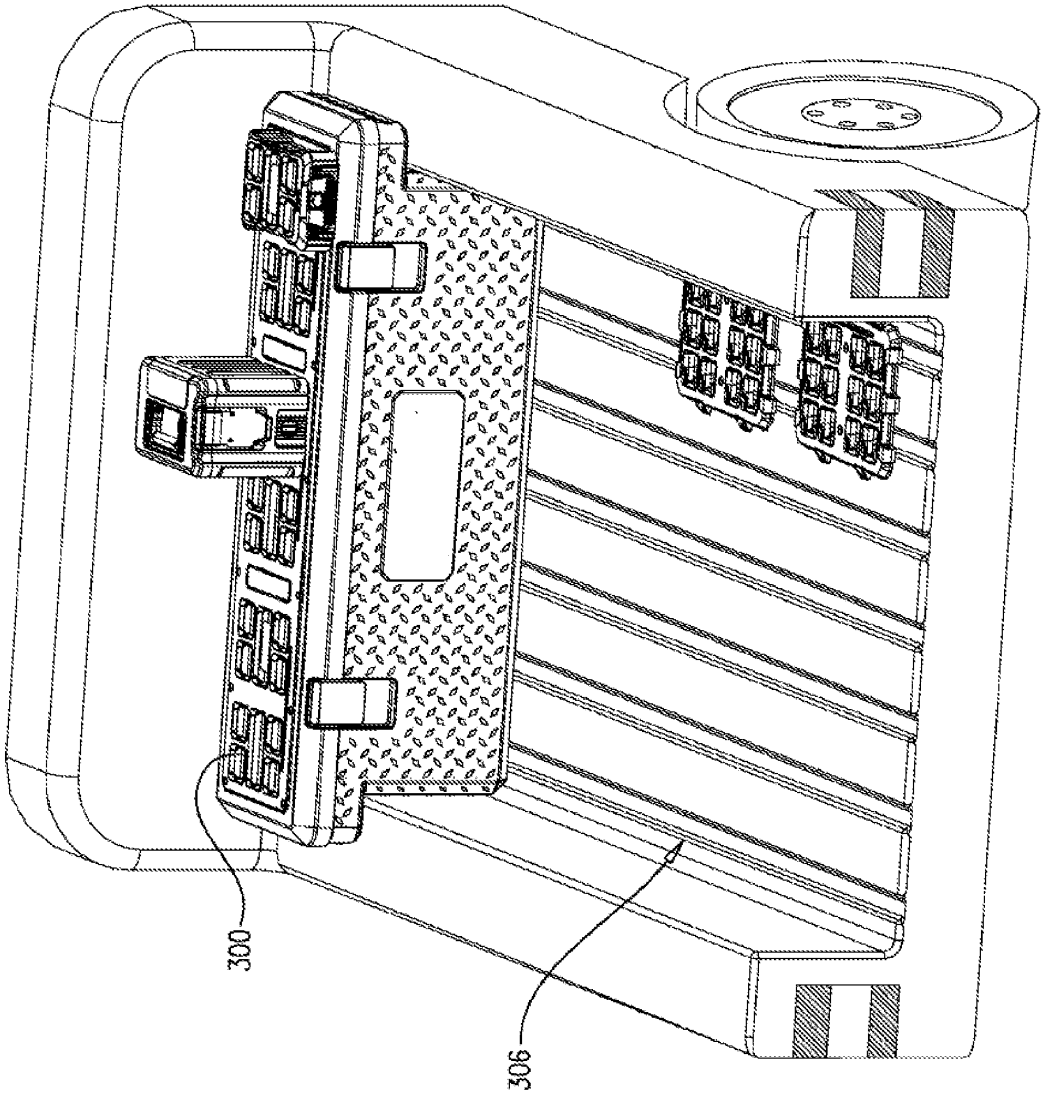


FIG. 19

FIG. 20



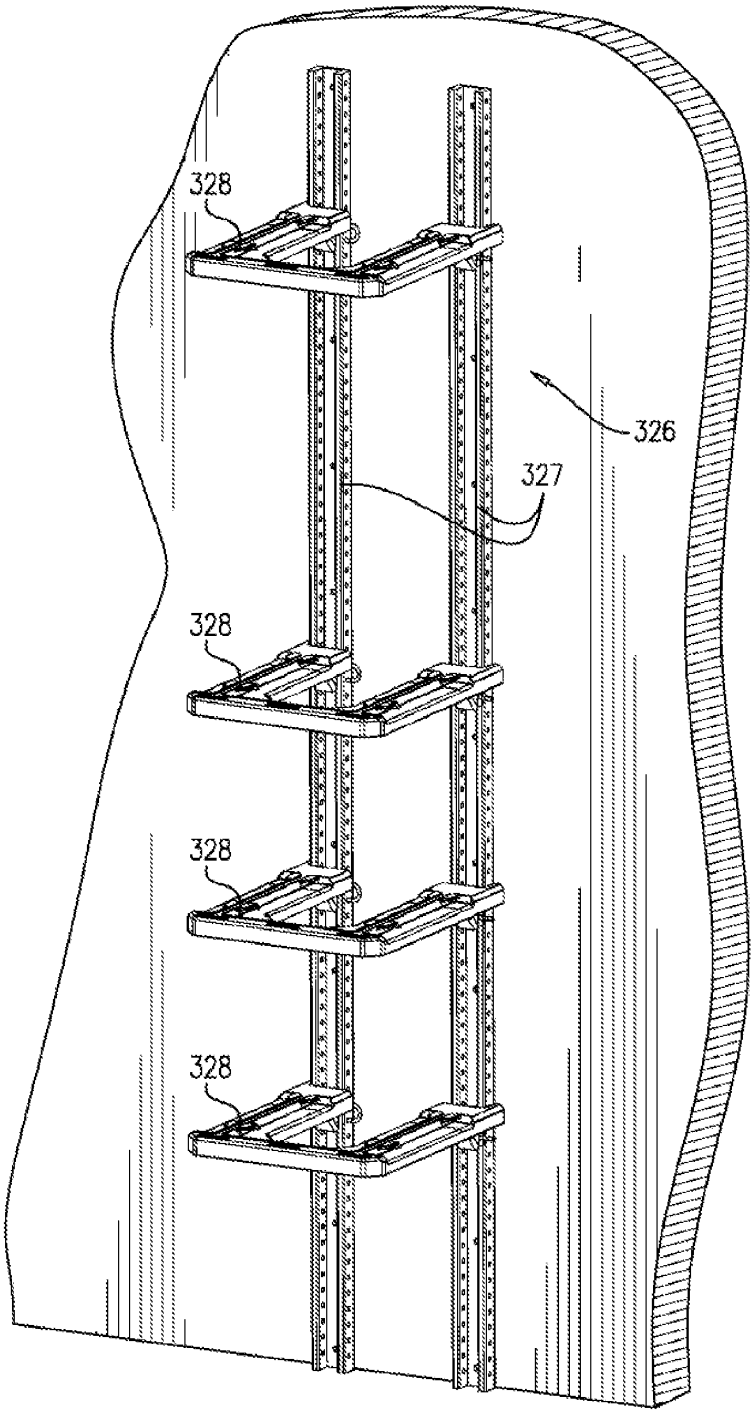


FIG. 21

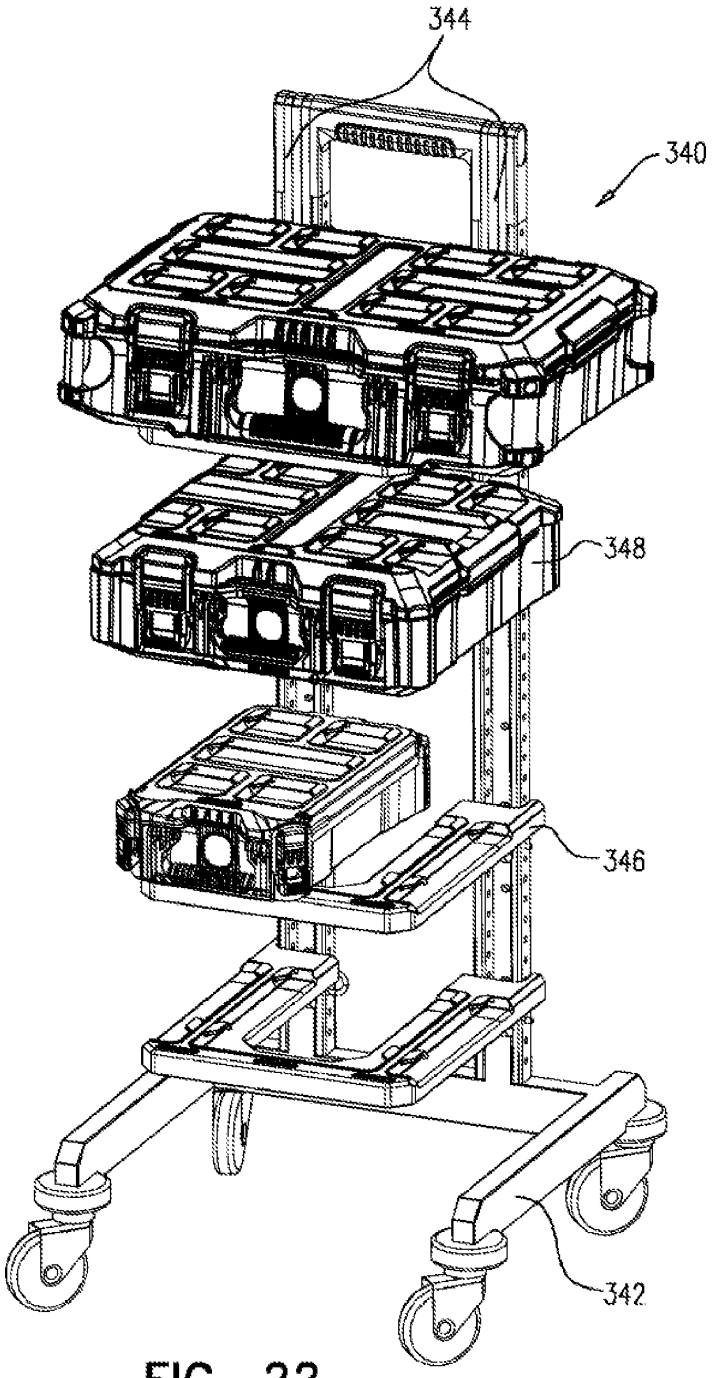


FIG. 22

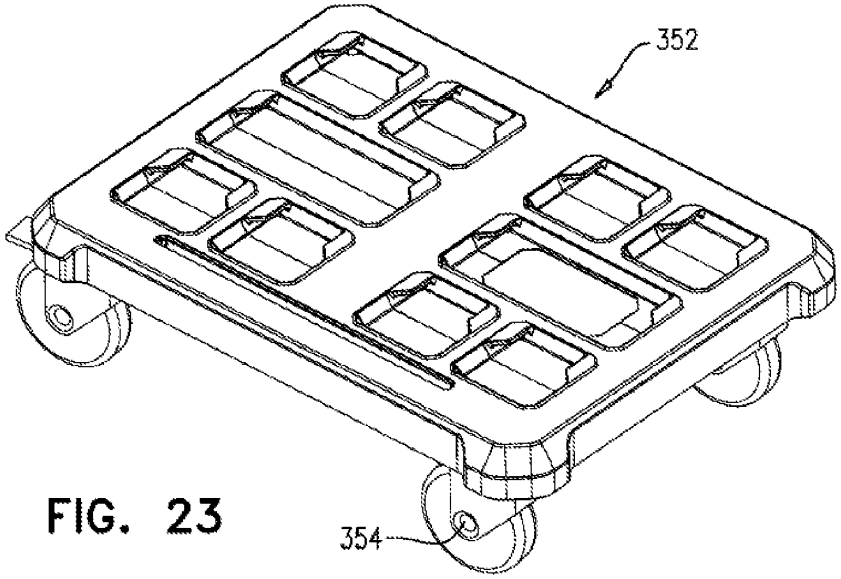


FIG. 23

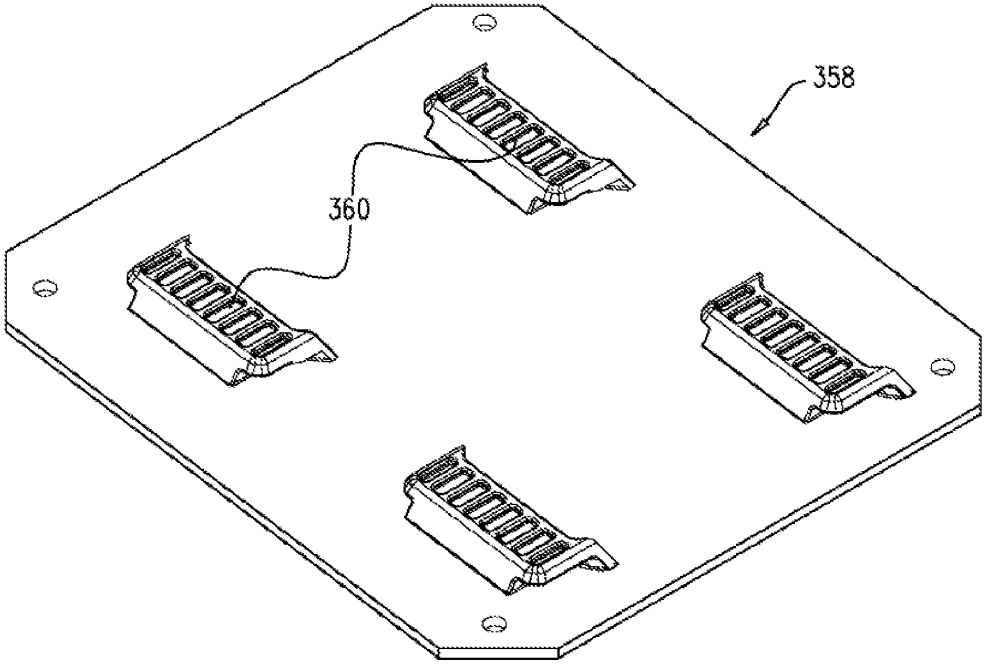


FIG. 24

Attorney Docket No.: 55390-501C01US (2517034)
US Application No.: 15/826,232

COMBINED DECLARATION AND ASSIGNMENT

Title of Invention: UTILITY ASSEMBLY AND COUPLING MECHANISM

This declaration and assignment is directed to:

☐ The attached or filed herewith application of (list of named inventors)_____,

or

☒ The United States application or PCT international application Number 15/826,232 filed on November 29, 2017.

Declaration

As the below named inventor, I hereby declare that:

The above-identified application ("Application") was made or authorized by me.

I believe that I am the original inventor or an original inventor of a claimed invention or discovery in the Application.

I have reviewed and understood the contents of the Application, including the claims, and I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of this Application in the United States of America.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both for filings of this Application in the United States of America.

Assignment

MILWAUKEE ELECTRIC TOOL CORPORATION
13135 West Lisbon Road
Brookfield, WI 53005

a Delaware Corporation

(hereinafter designated as the "Assignee"),

☐ I hereby acknowledge that I have assigned the above-identified invention by previous assignment (attached hereto) to Assignee which is hereby conformed for recordation in the US Patent Office and I confirm I have and do assign and transfer:

or

☒ For good and valuable consideration, the sufficiency of which is acknowledged, I hereby assign and transfer and/or have assigned and transferred to Assignee:

my entire right, title, and interest in, to, and under the Application, including all priority rights for other countries arising therefrom and the right to claim priority to the Application, all inventions or discoveries therein disclosed, and any and all Letters Patent of the United States, European Patent Office and of all other countries, which may be granted for such inventions or discoveries, or any of them, all such inventions or discoveries and all rights in such Application including any and all provisionals, substitutions, divisions, and continuations thereof, and to all Letters Patent that may be granted for said inventions and discoveries, and in and to all extensions, supplementary protection certificates, reexaminations, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use and enjoyment to the full end of the term or terms for which such Letters Patent may be granted, as fully and entirely as the same would

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 831
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IPR2024-01400

have been held and enjoyed by me had this assignment and sale not been made.

I shall execute all papers necessary in connection with the Application in the United States Patent and Trademark Office, European Patent Office, any other patent offices, and under the Patent Cooperation Treaty, and any continuing, divisional, or reissue applications thereof, any reexamination of any of such applications, and any patent term extensions or supplementary protection certificates of any such applications and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I shall execute all papers necessary in connection with any litigation or any other judicial proceeding in the United States or other country, or any administrative proceeding in the United States Patent and Trademark Office, European Patent Office, any other patent office, or under the Patent Cooperation Treaty concerning the Application(s) or any continuation, divisional, or reissue applications thereof, or any reexamination of any such applications, or any Letters Patent issued therefrom or any patent term extensions or supplementary protection certificates of any such applications and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such litigation or proceeding.

I shall execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

I hereby (i) authorize and request the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the Application or any divisional, continuation, or reissue applications thereof, and any reexamination of any of such applications, to Assignee, and (ii) covenant that I have full right to convey the interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

LEGAL NAME OF INVENTOR

Grant T. Squiers

Signature _____ Date 9.5.18

80375140v.1

Attorney Docket No.: 55390-501C01US (2517034)
US Application No.: 15/826,232

COMBINED DECLARATION AND ASSIGNMENT

Title of Invention: UTILITY ASSEMBLY AND COUPLING MECHANISM

This declaration and assignment is directed to:

☐ The attached or filed herewith application of (list of named inventors)_____,

or

☒ The United States application or PCT international application Number 15/826,232 filed on November 29, 2017.

Declaration

As the below named inventor, I hereby declare that:

The above-identified application ("Application") was made or authorized by me.

I believe that I am the original inventor or an original inventor of a claimed invention or discovery in the Application.

I have reviewed and understood the contents of the Application, including the claims, and I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of this Application in the United States of America.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both for filings of this Application in the United States of America.

Assignment

MILWAUKEE ELECTRIC TOOL CORPORATION
13135 West Lisbon Road
Brookfield, WI 53005

a Delaware Corporation

(hereinafter designated as the "Assignee"),

☐ I hereby acknowledge that I have assigned the above-identified invention by previous assignment (attached hereto) to Assignee which is hereby conformed for recordation in the US Patent Office and I confirm I have and do assign and transfer:

or

☒ For good and valuable consideration, the sufficiency of which is acknowledged, I hereby assign and transfer and/or have assigned and transferred to Assignee:

my entire right, title, and interest in, to, and under the Application, including all priority rights for other countries arising therefrom and the right to claim priority to the Application, all inventions or discoveries therein disclosed, and any and all Letters Patent of the United States, European Patent Office and of all other countries, which may be granted for such inventions or discoveries, or any of them, all such inventions or discoveries and all rights in such Application including any and all provisionals, substitutions, divisions, and continuations thereof, and to all Letters Patent that may be granted for said inventions and discoveries, and in and to all extensions, supplementary protection certificates, reexaminations, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use and enjoyment to the full end of the term or terms for which such Letters Patent may be granted, as fully and entirely as the same would

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 833
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have been held and enjoyed by me had this assignment and sale not been made.

I shall execute all papers necessary in connection with the Application in the United States Patent and Trademark Office, European Patent Office, any other patent offices, and under the Patent Cooperation Treaty, and any continuing, divisional, or reissue applications thereof, any reexamination of any of such applications, and any patent term extensions or supplementary protection certificates of any such applications and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

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I shall execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

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I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

LEGAL NAME OF INVENTOR

Christopher S. Hoppe

Signature _____ Date _____

80343876v.1

Attorney Docket No.: 55390-501C01US (2517034)
US Application No.: 15/826,232

COMBINED DECLARATION AND ASSIGNMENT

Title of Invention: UTILITY ASSEMBLY AND COUPLING MECHANISM

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☐ The attached or filed herewith application of (list of named inventors)_____,

or

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Assignment

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(hereinafter designated as the "Assignee"),

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or

☒ For good and valuable consideration, the sufficiency of which is acknowledged, I hereby assign and transfer and/or have assigned and transferred to Assignee:

my entire right, title, and interest in, to, and under the Application, including all priority rights for other countries arising therefrom and the right to claim priority to the Application, all inventions or discoveries therein disclosed, and any and all Letters Patent of the United States, European Patent Office and of all other countries, which may be granted for such inventions or discoveries, or any of them, all such inventions or discoveries and all rights in such Application including any and all provisionals, substitutions, divisions, and continuations thereof, and to all Letters Patent that may be granted for said inventions and discoveries, and in and to all extensions, supplementary protection certificates, reexaminations, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use and enjoyment to the full end of the term or terms for which such Letters Patent may be granted, as fully and entirely as the same would

Milwaukee Electric Tool, Keter Home and Garden Products – Ex. 2004 - Page 835
Klein Tools v. Milwaukee Electric Tool, Keter Home and Garden Products
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have been held and enjoyed by me had this assignment and sale not been made.

I shall execute all papers necessary in connection with the Application in the United States Patent and Trademark Office, European Patent Office, any other patent offices, and under the Patent Cooperation Treaty, and any continuing, divisional, or reissue applications thereof, any reexamination of any of such applications, and any patent term extensions or supplementary protection certificates of any such applications and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

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I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

LEGAL NAME OF INVENTOR

Steven W. Hyma

Signature

9/5/19

Date

80343942v.1

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention: UTILITY ASSEMBLY AND COUPLING MECHANISM

As a below named inventor, I hereby declare that:

This declaration is directed to the application

☐ attached hereto, or

☒ United States application or PCT International Application No. 15/826,232 filed on November 29, 2017

The above-identified application was made by me or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to the patentability of this application as defined in 37 CFR § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Legal Name of Inventor

Inventor: **Yaron BRUNNER** Date: 4/01/18

Signature: _____