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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 **124** (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. 7 to 16, 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

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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 **240**, 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 **P** in Figs. 7A and 9B). Further noted, side walls **250** of

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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. **236A** in Fig. 8A), 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

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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. 13A and 13B. 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, 14A, 14B and 14C), 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 Fig. 16 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).

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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 **321B** of a single depressed locking location **308**, 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 **321B** 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 **321B** by two individual (separate) male couplers **316A** and **316B**, each configured for arresting one of the respective engaging ribs **312A** and **321B**. 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. 13 to 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 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.

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

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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 **230** supporting two detachable workpiece-piece supports **232** (attached as discussed herein before with reference to Figs. 12). Fig. 14C illustrates a utility module in the form of a work surface **236** configured with a vice race **238**, so that a vice **240**, or other workshop tools can be used. The workpiece-piece supports **232** are configured with a male type coupling having projecting locking locations **244** for engaging with respective female couplers.

In Figs. 15A and 15B there is illustrated a back-rack **250** being a substantially rigid platform having a carrying handle **251** and configured at one side thereof with a pair of adjustable shoulder harnesses **252**, and an adjustable waist harness **254**. The other side of the back-rack is configured as a universal utility mounting platform **258**, configured with a plurality of attachment locations **260**. In the illustrated example all attachment locations **260** 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 user 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 **264** (shown from a bottom side), similar to that disclosed in connection with Figs. 7 to 11. The carrying unit **264** comprises a rigid platform **266** 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 **268** and a pair of wheels **266**. 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

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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 **280** having soft side walls **282** (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 **280** has a carrying strap **290** useful for hand held or shoulder carrying of the bag.

Figure 18A shows a rigid coupling platform **296**, 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 **296** 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 **296** 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 **242** 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.

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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.

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CLAIMS:

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

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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 claim 8, wherein the at least one locking rib extends substantially parallel to the sliding path.

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

11. The coupling arrangement of claim 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 claim 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 claim 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.

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14. The coupling arrangement of any one of claims 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 claims 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 claims 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 claims 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 claims 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 claims 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 claims 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 claims 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

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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 comprising at least a first utility module and at least a second utility module, and comprising a coupling mechanism according to any one of claims 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.

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25. The utility assembly of claim 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 claim 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 claims 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 claims 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 claims 24 to 28, wherein the at least one locking rib extends substantially parallel to the sliding path.

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

31. The utility assembly of claim 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 claim 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 claim 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 claims 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 claims 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.

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36. The utility assembly of any one of claims 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 claims 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 claims 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 claims 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 claims 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 claims 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 claim 41, wherein the container module is compartmented and optionally configured with sub-containers and sub-compartment.

43. The utility assembly of claim 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 claims 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 claims 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 claims 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 claims 24 to 40, wherein said first utility module is a mobile carrier unit.

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48. The utility assembly of any one of claims 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 claims 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, 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.

51. The mobile carrier unit of claim 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 claim 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 claims 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 claims 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 claim 54, wherein the mobile carrier unit and the at least one utility module are detachably interlocked with one another by a dovetail engagement

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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.

56. The assembly of claim 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 claim 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 claims 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 claim 58, wherein the locking mechanism comprises a locking pin that is configured for snappingly 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

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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 claim 60, being configured for detachable or fixed attachment to a surface of an object.

62. The interface coupling module of claim 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 claim 60 or 61, being a surface mount for attaching utility modules

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

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

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

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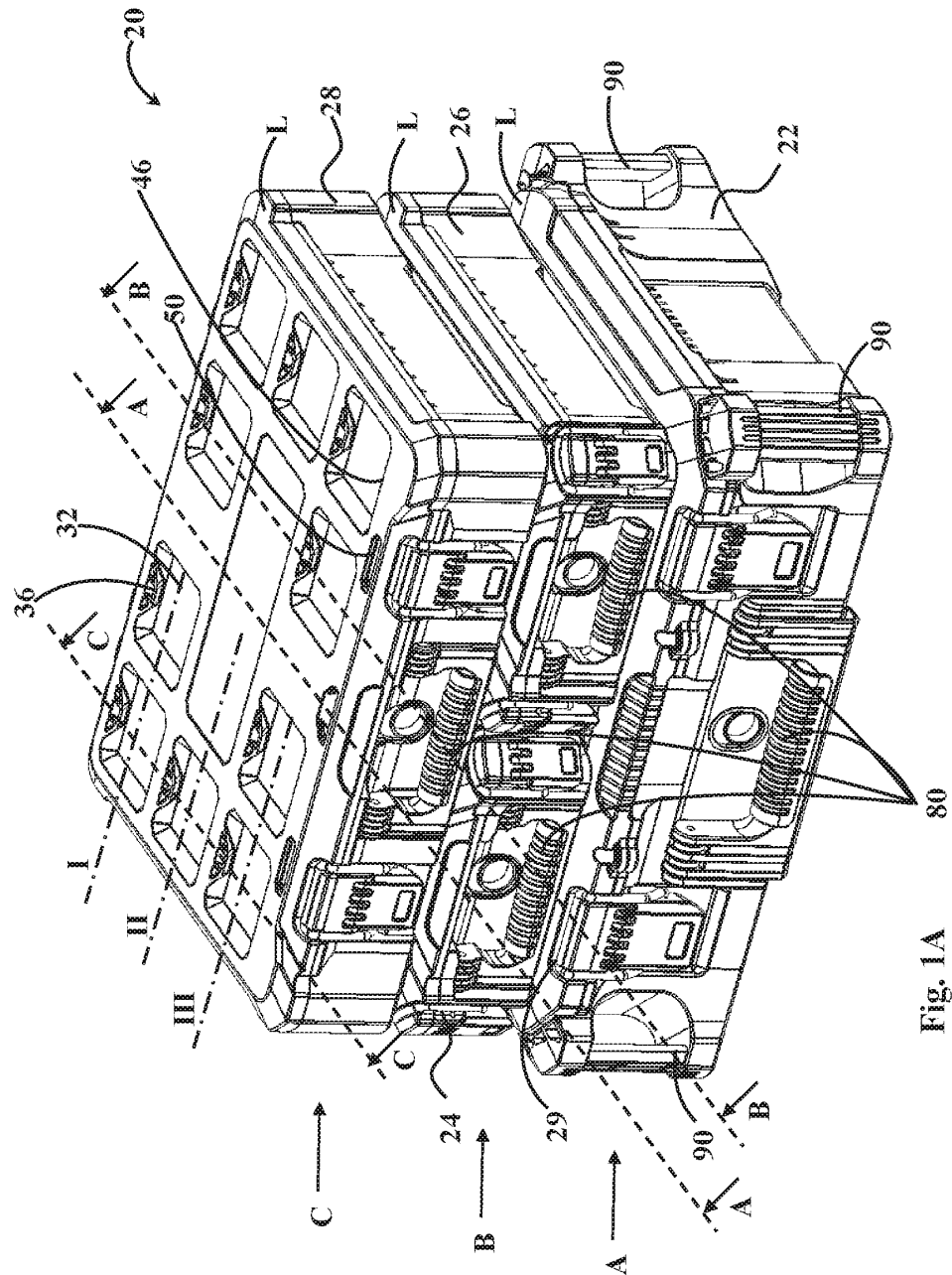
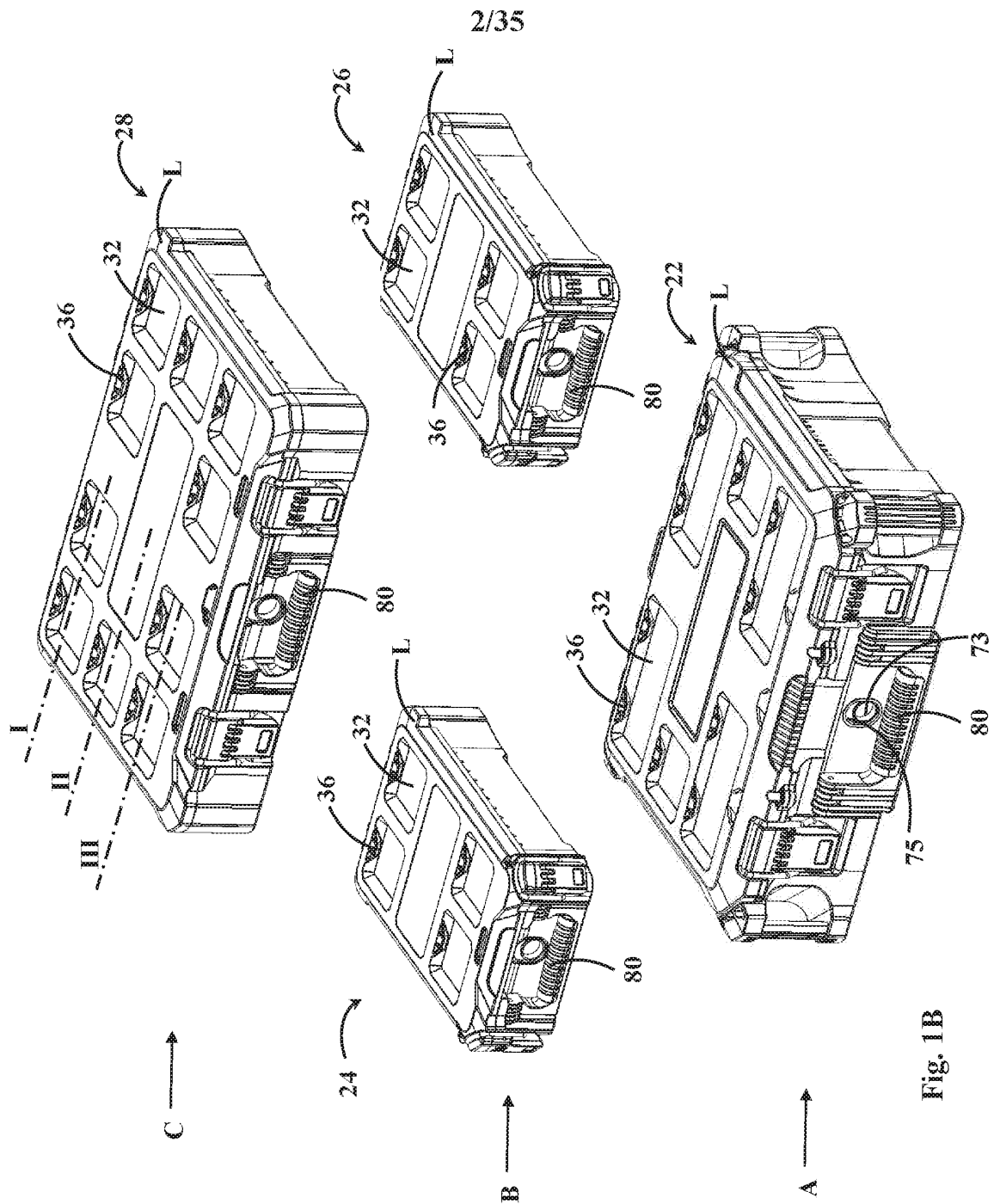
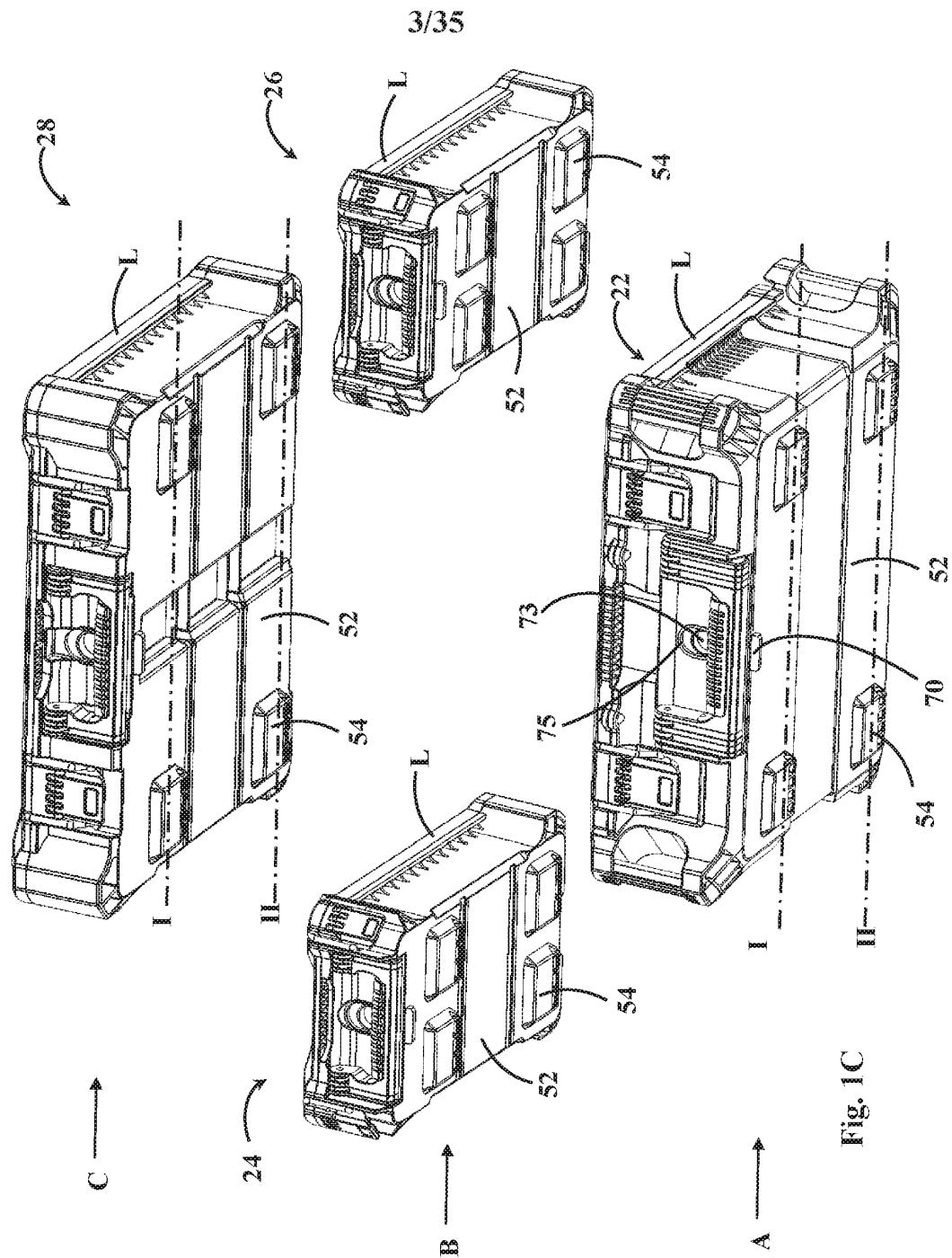


Fig. 1A





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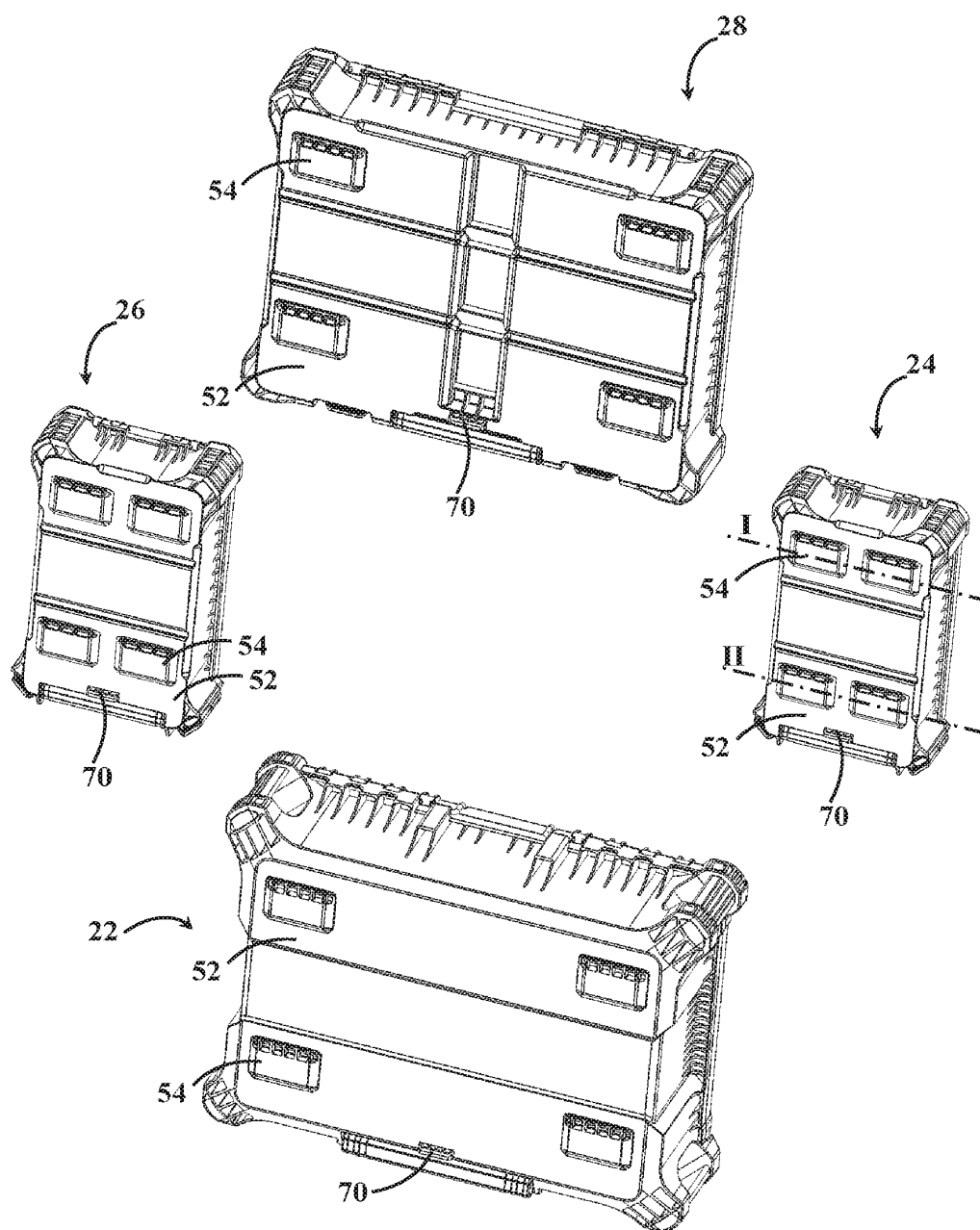


Fig. 1D

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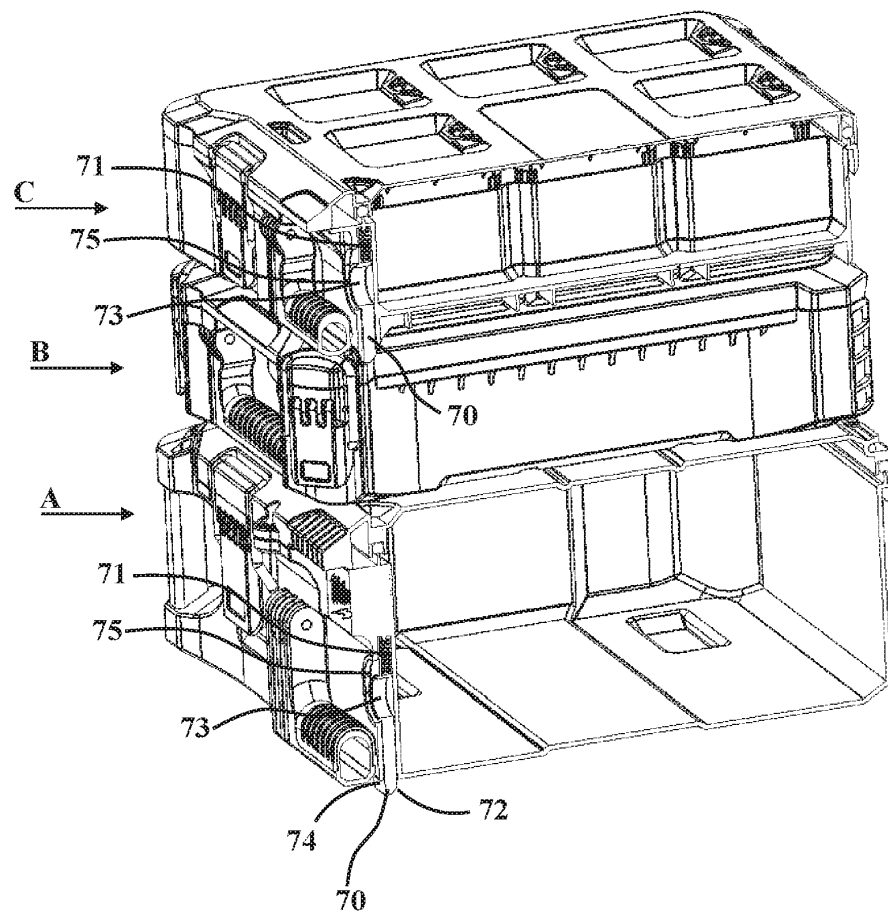


Fig. 2A

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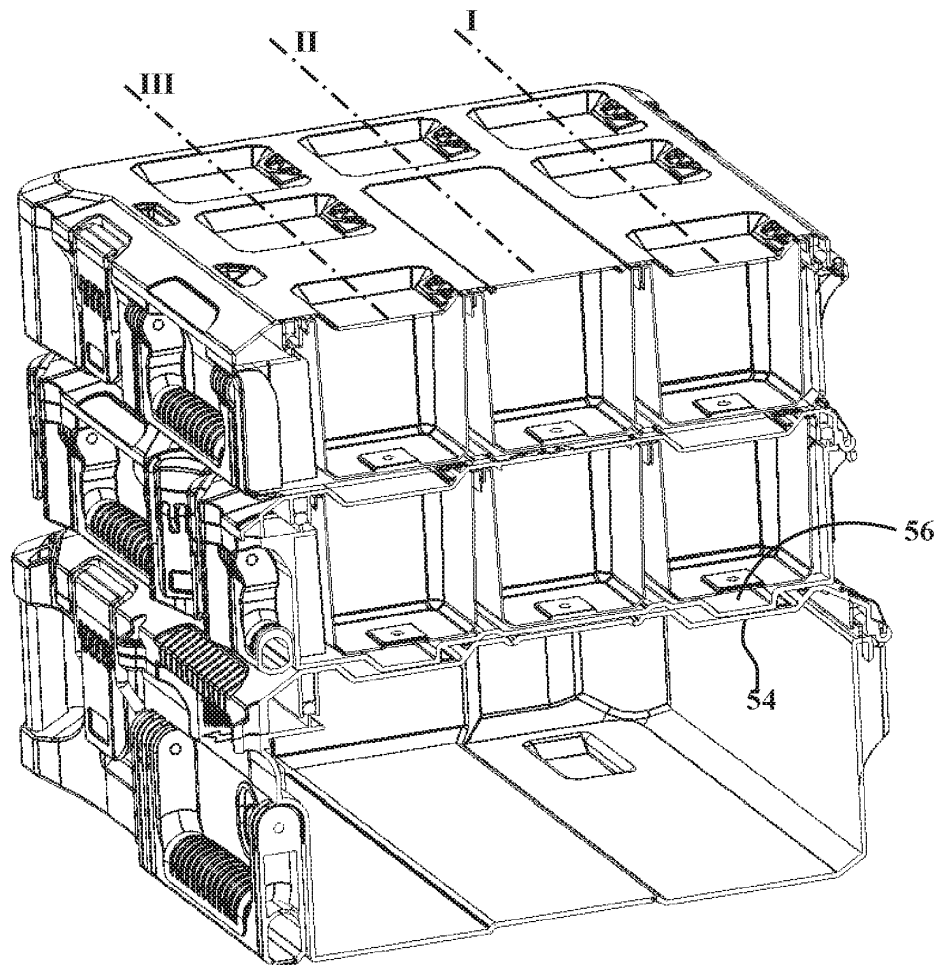


Fig. 2B

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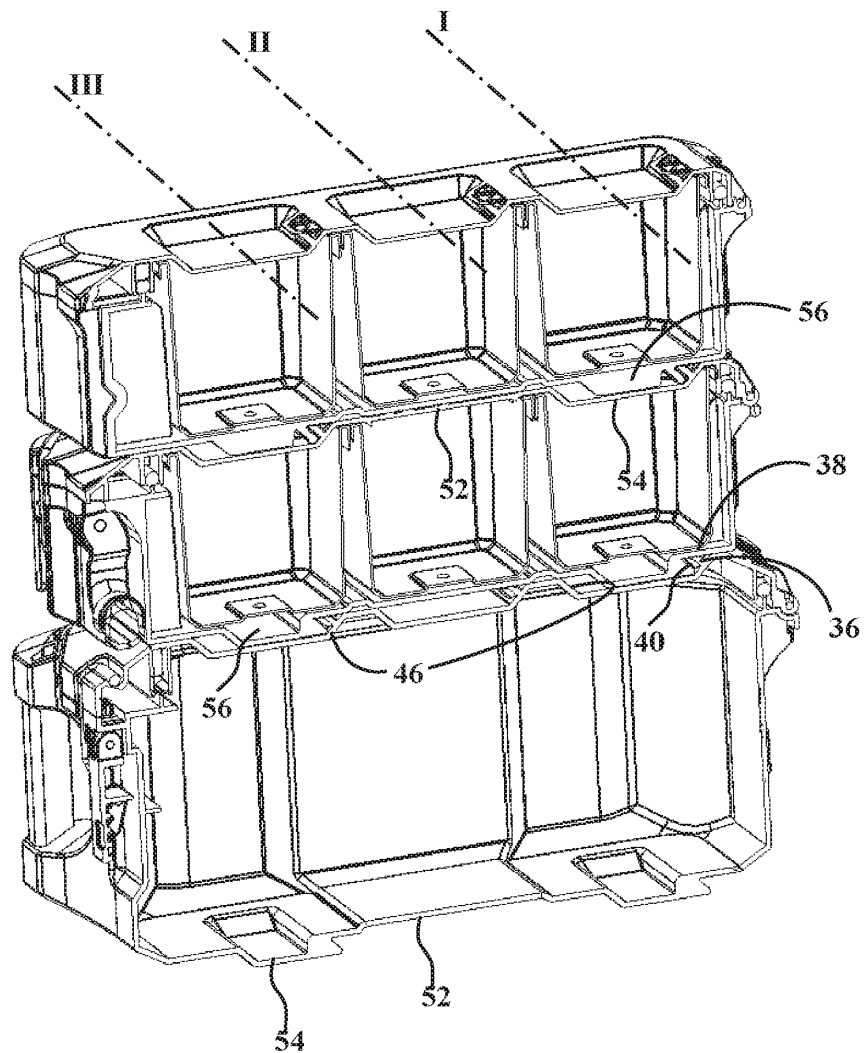
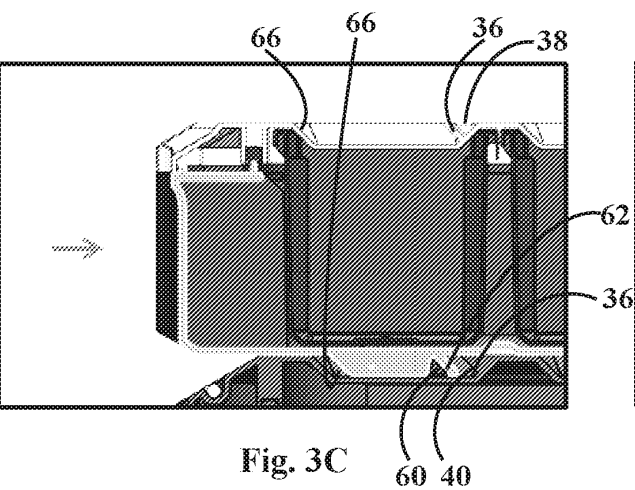
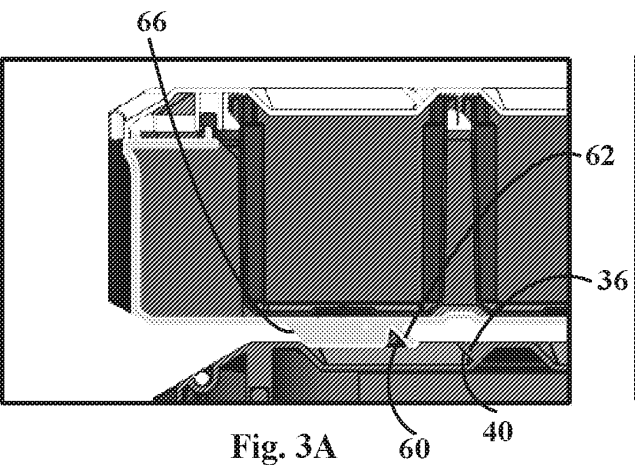
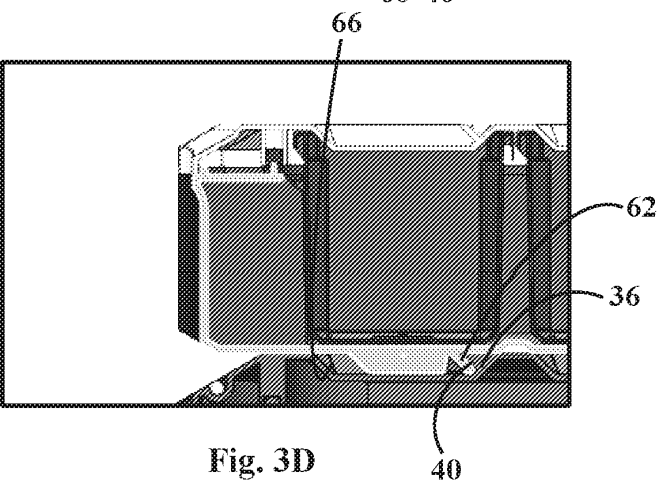
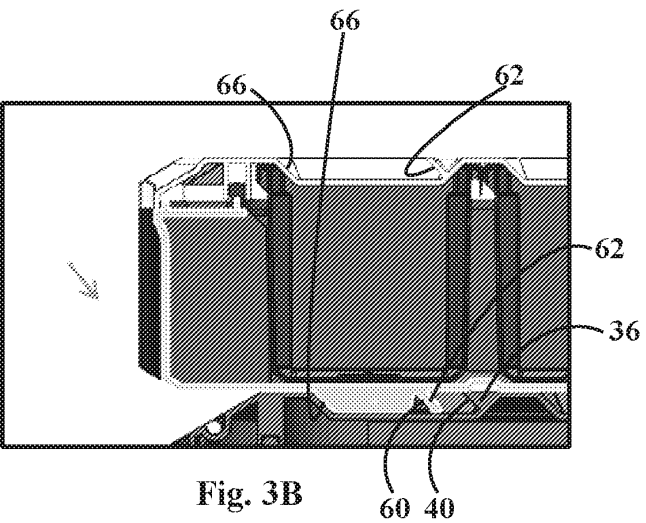
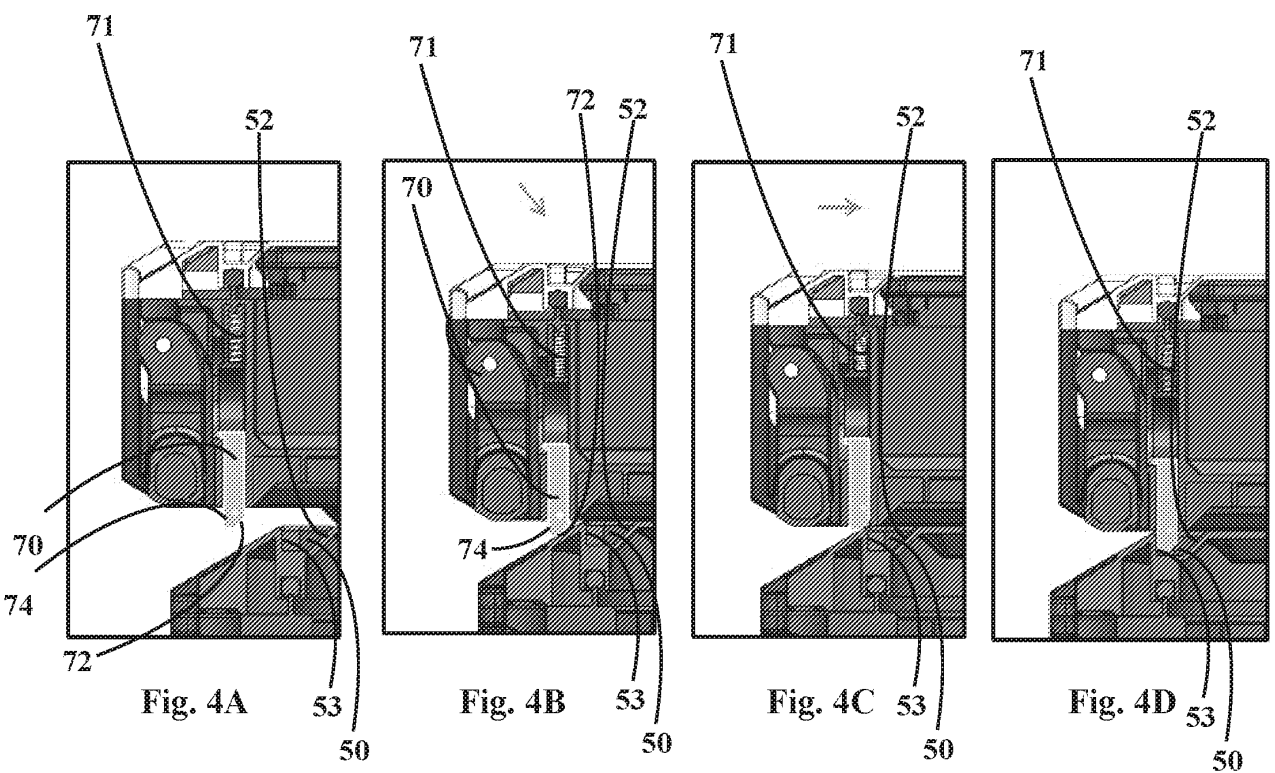


Fig. 2C

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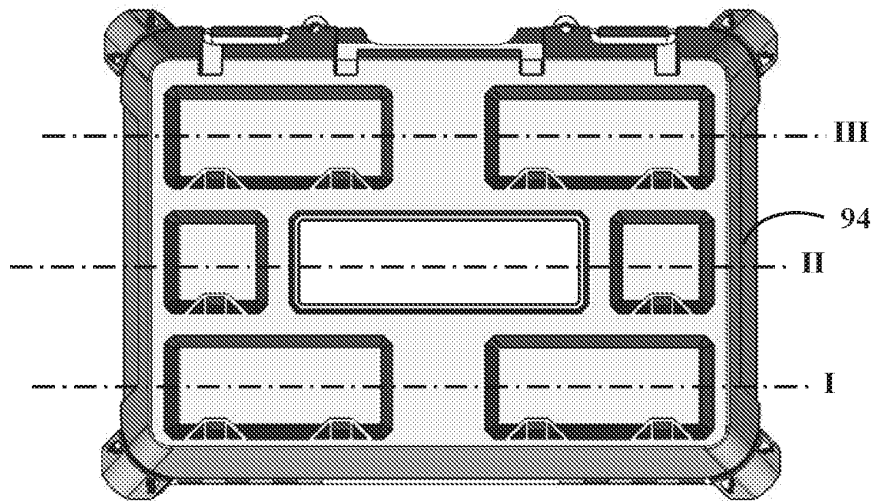


Fig. 5A



Fig. 5B

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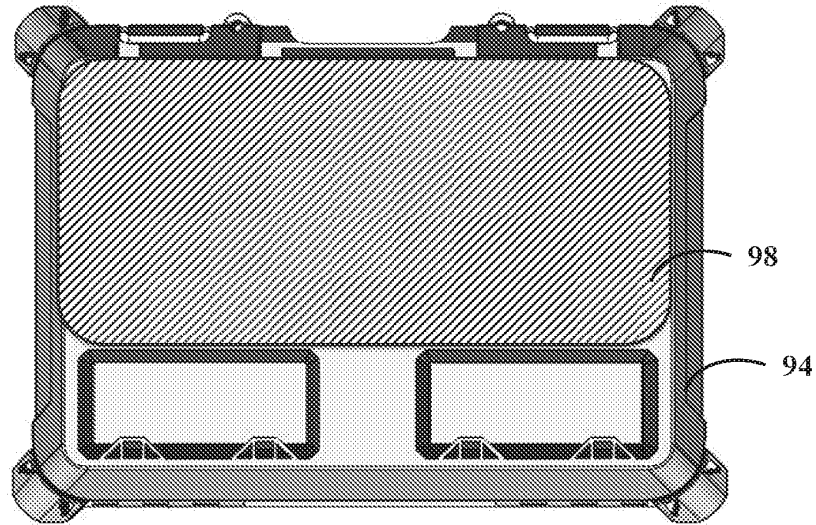


Fig. 5C



Fig. 5D

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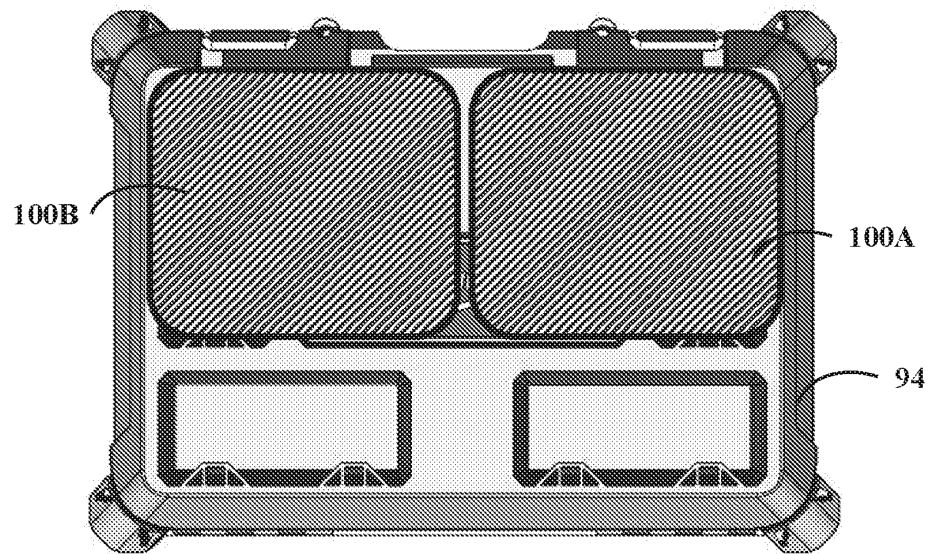
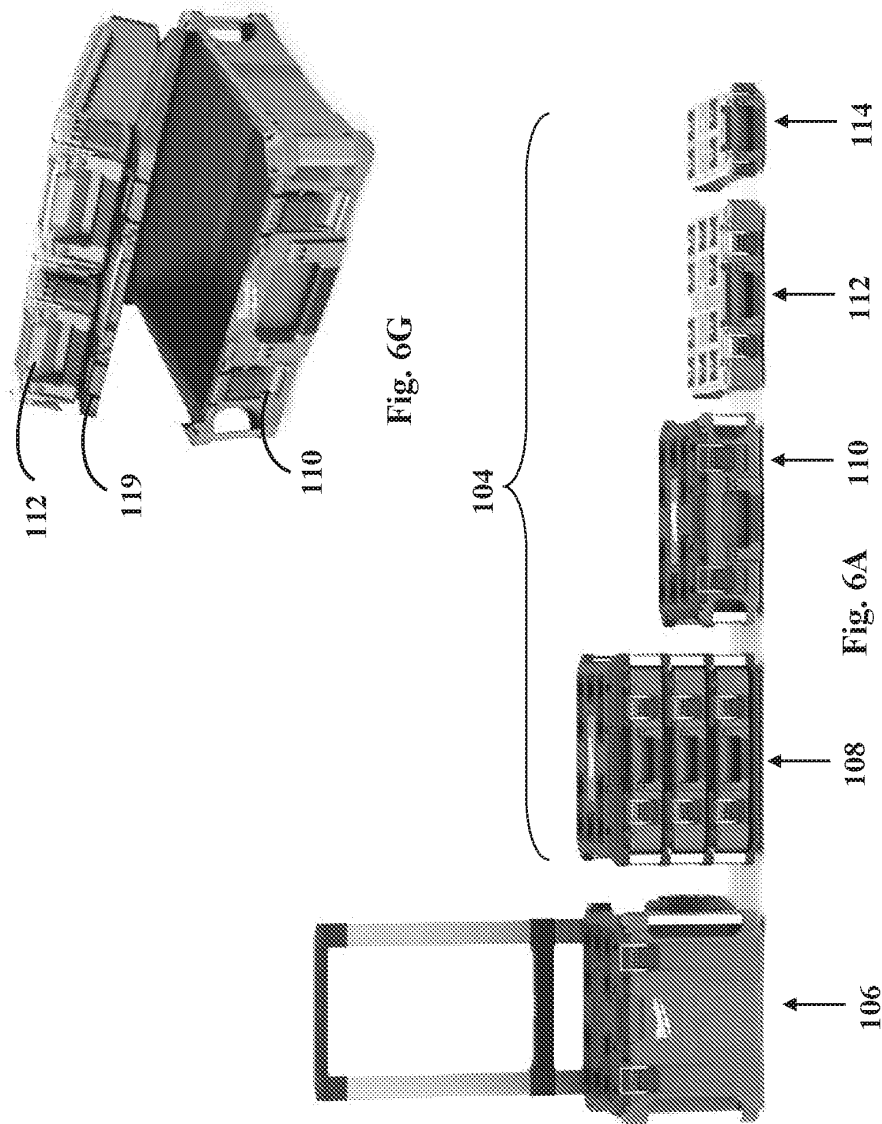


Fig. 5E

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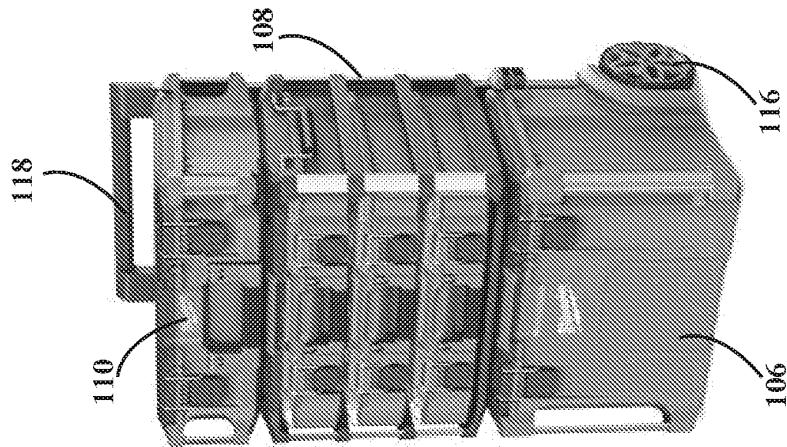


Fig. 6D

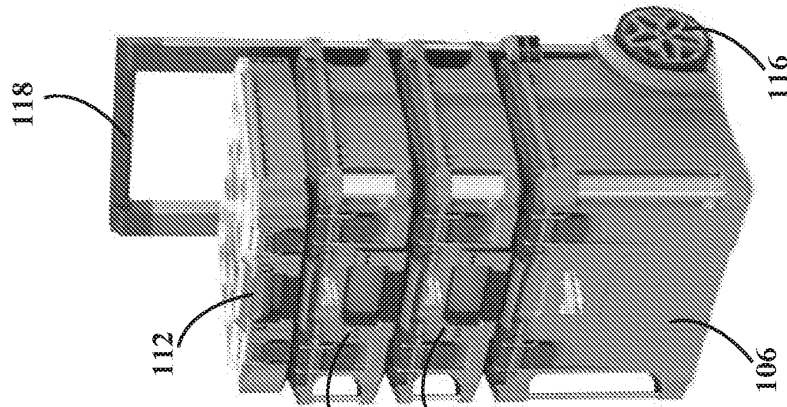


Fig. 6C

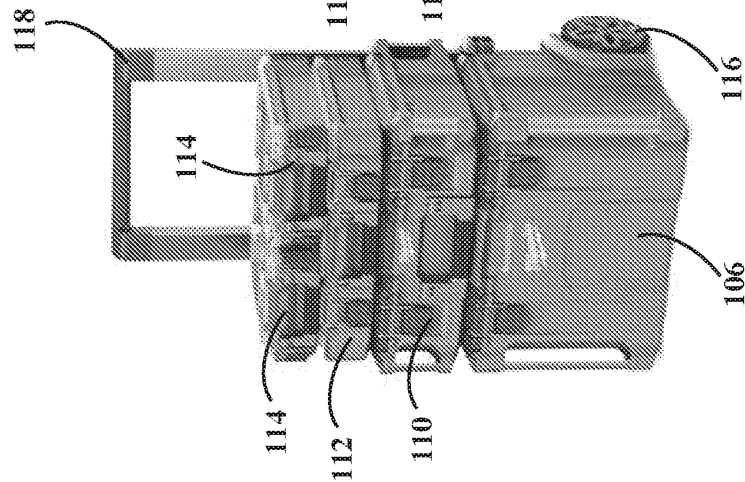


Fig. 6B

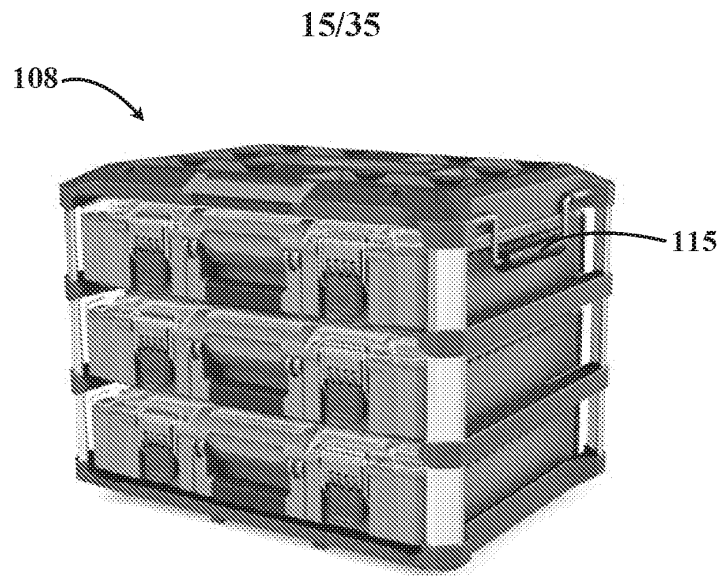


Fig. 6E

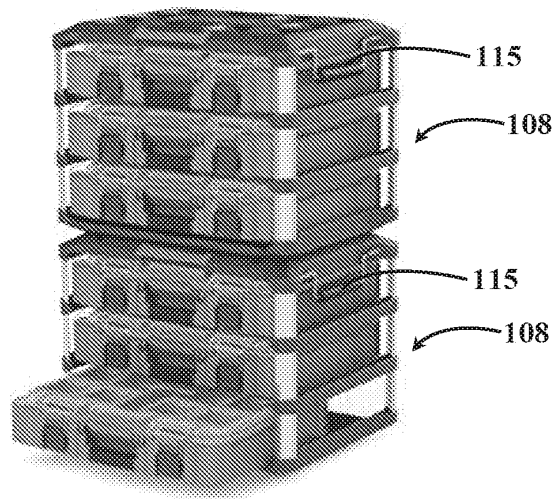


Fig. 6F

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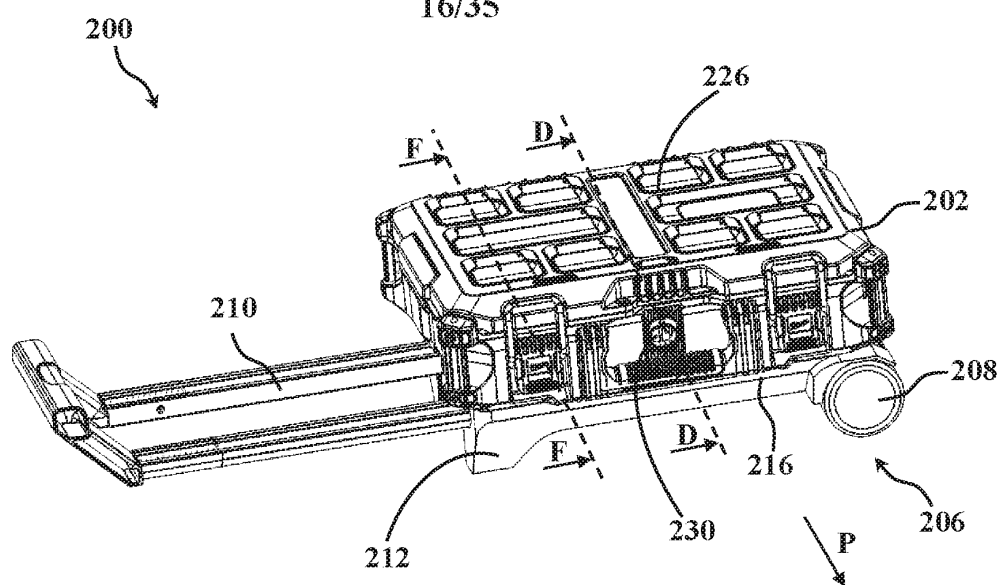


Fig. 7A

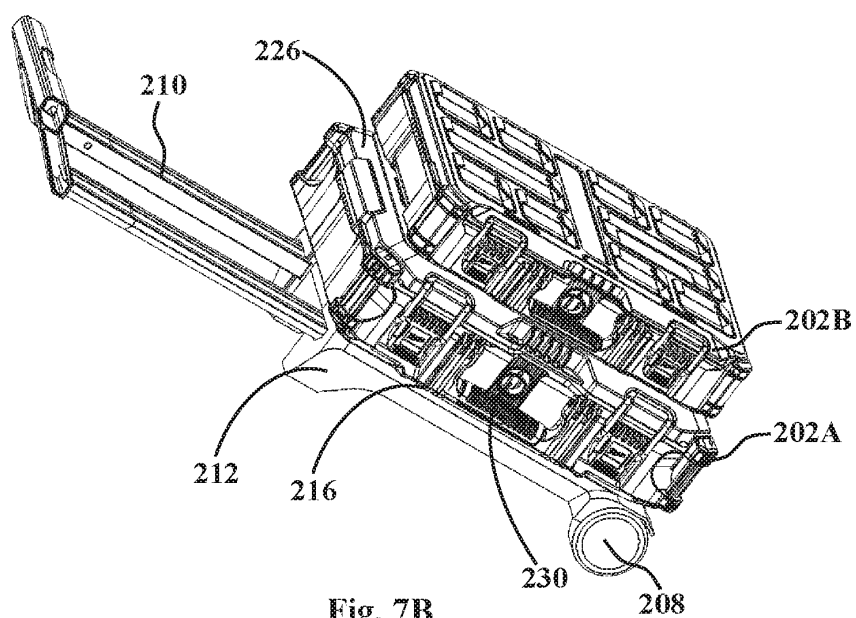
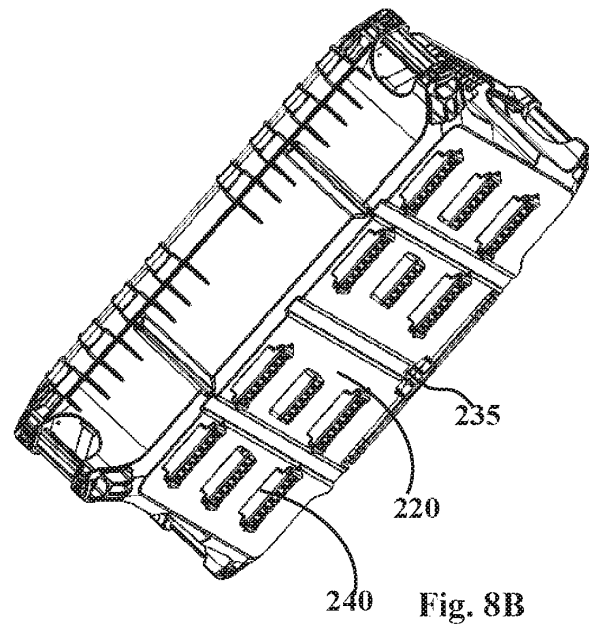
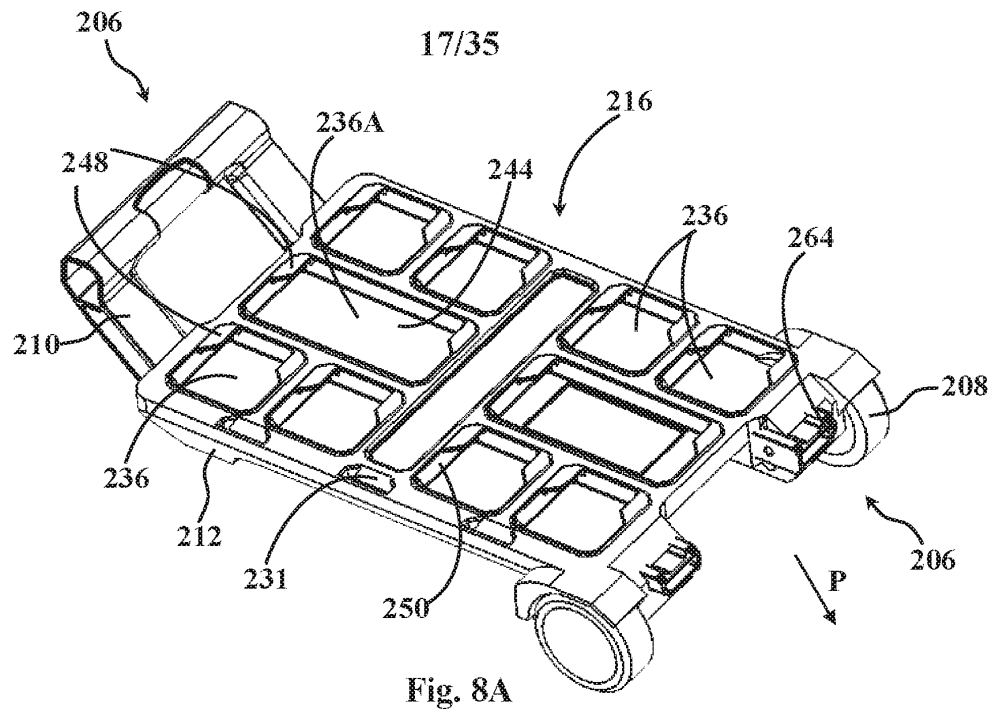


Fig. 7B



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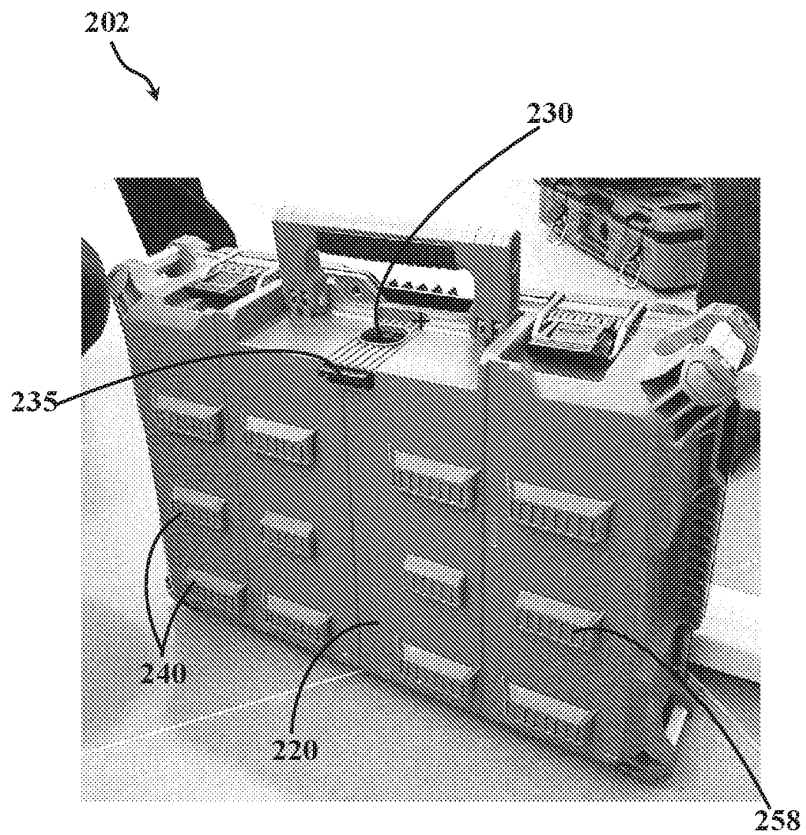
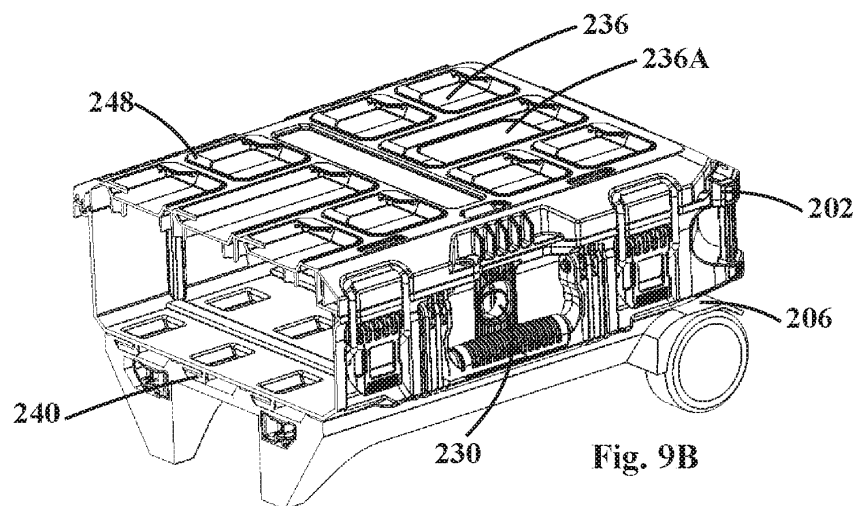
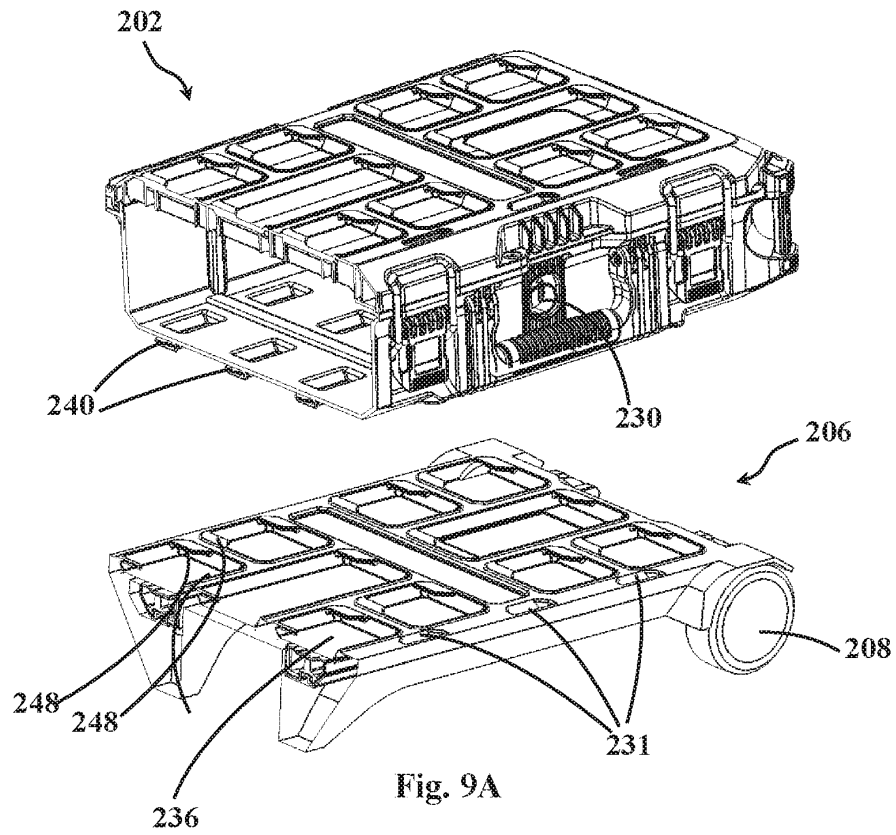


Fig. 8C

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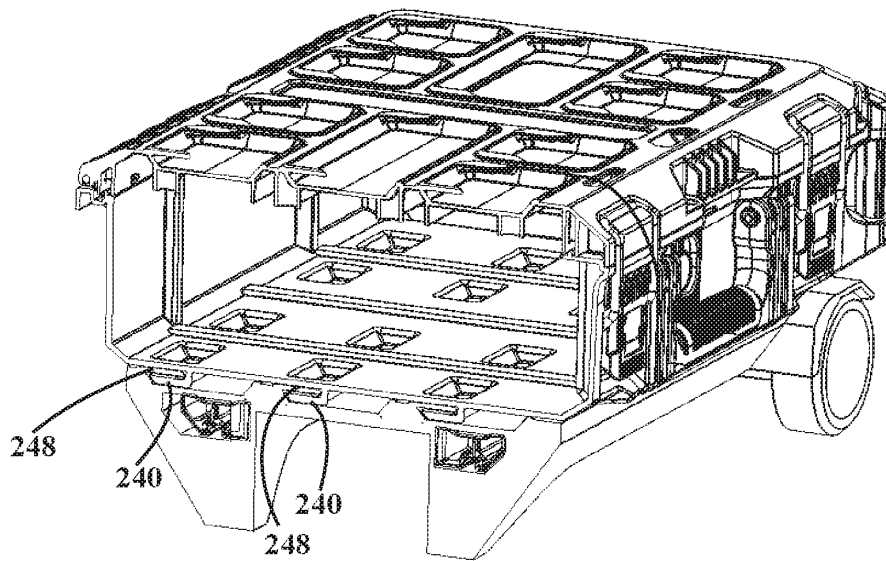


Fig. 9C

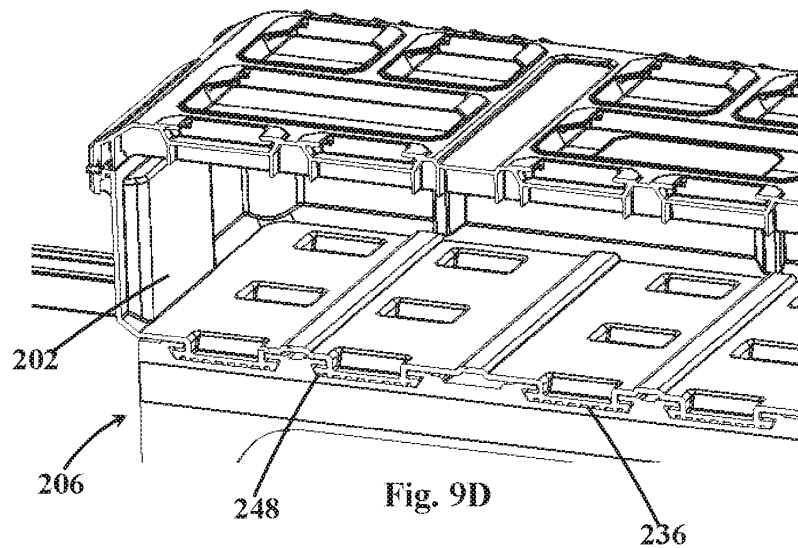


Fig. 9D

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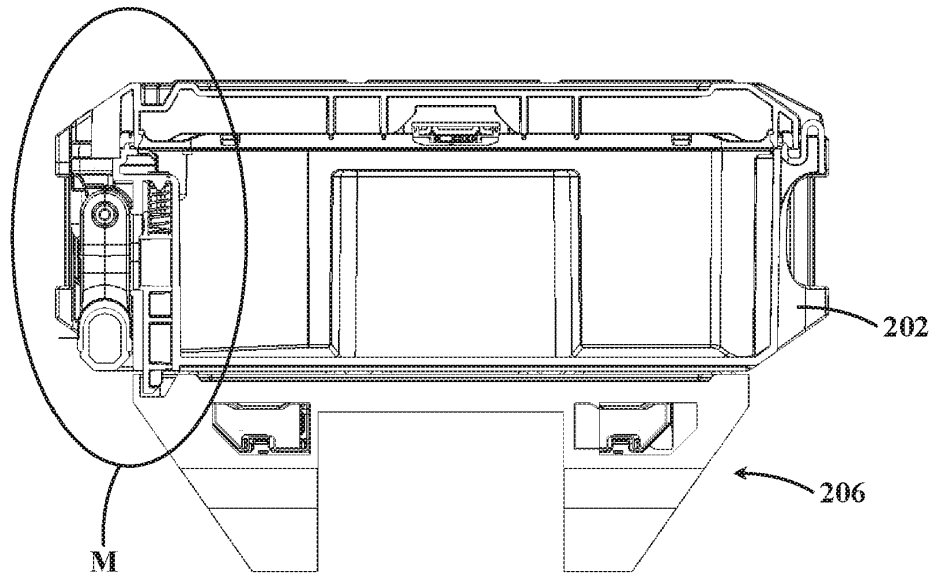


Fig. 10A

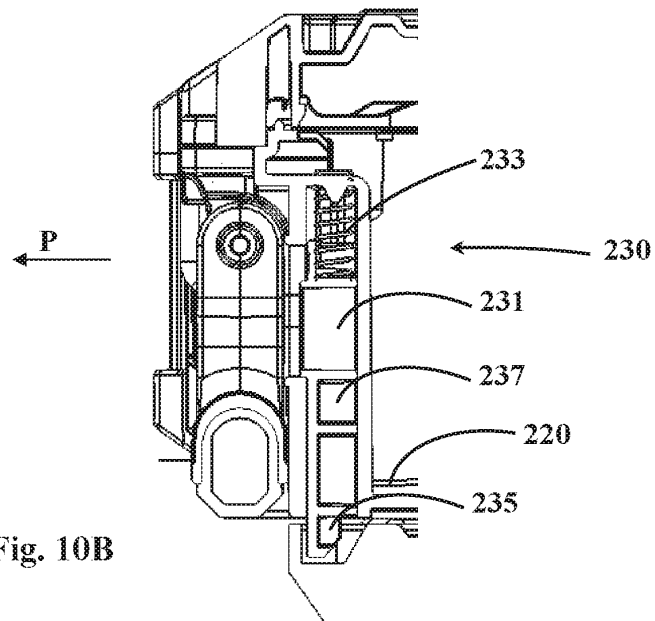


Fig. 10B

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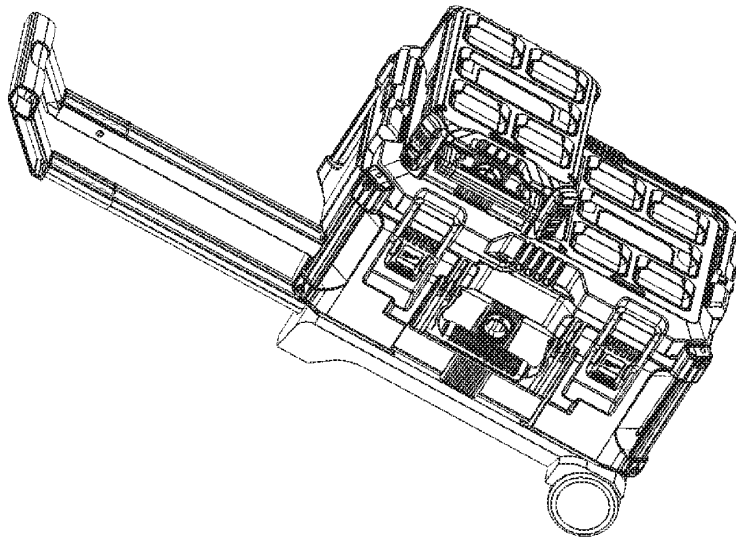


Fig. 11A

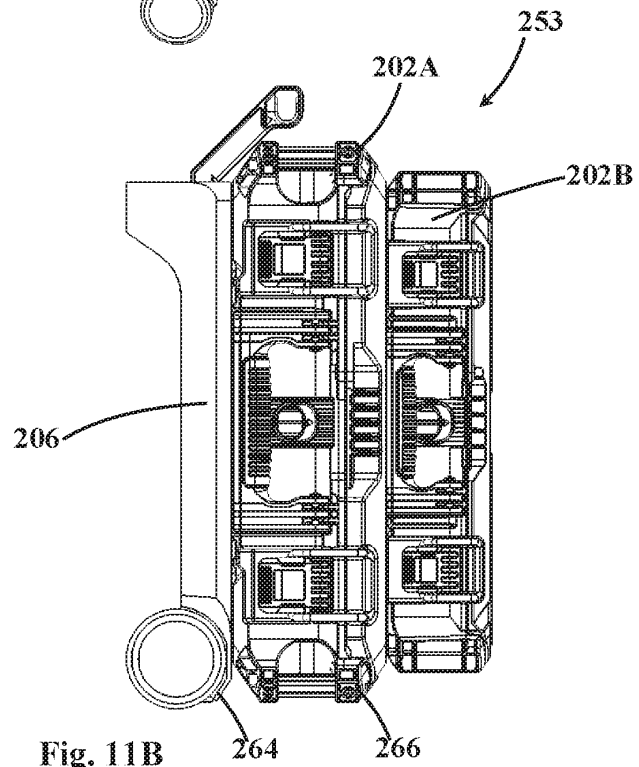
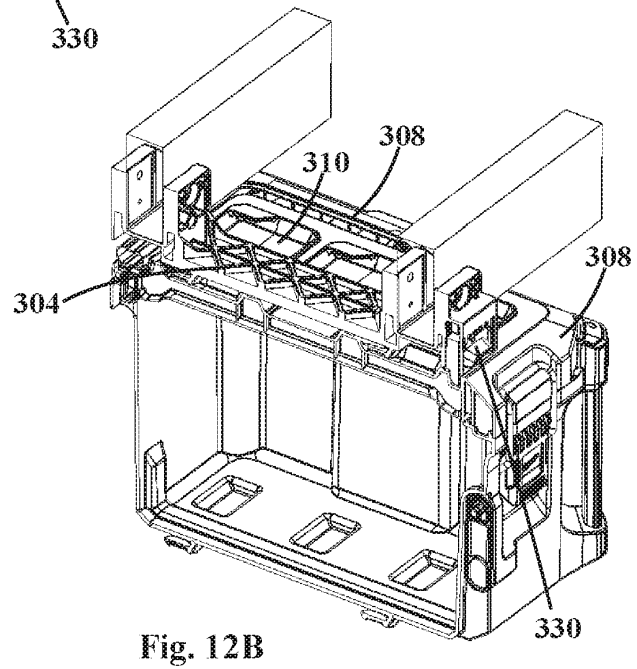
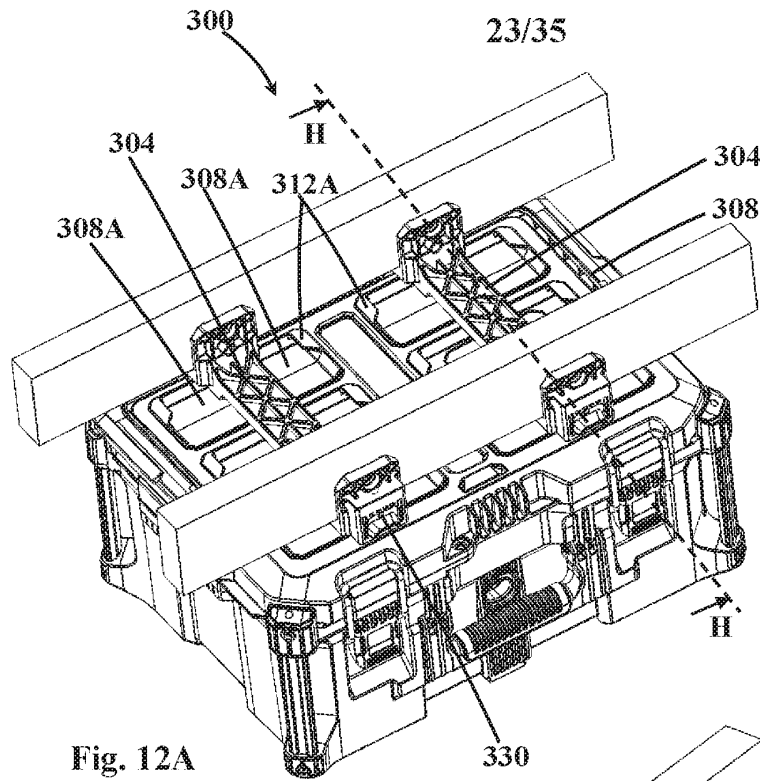


Fig. 11B



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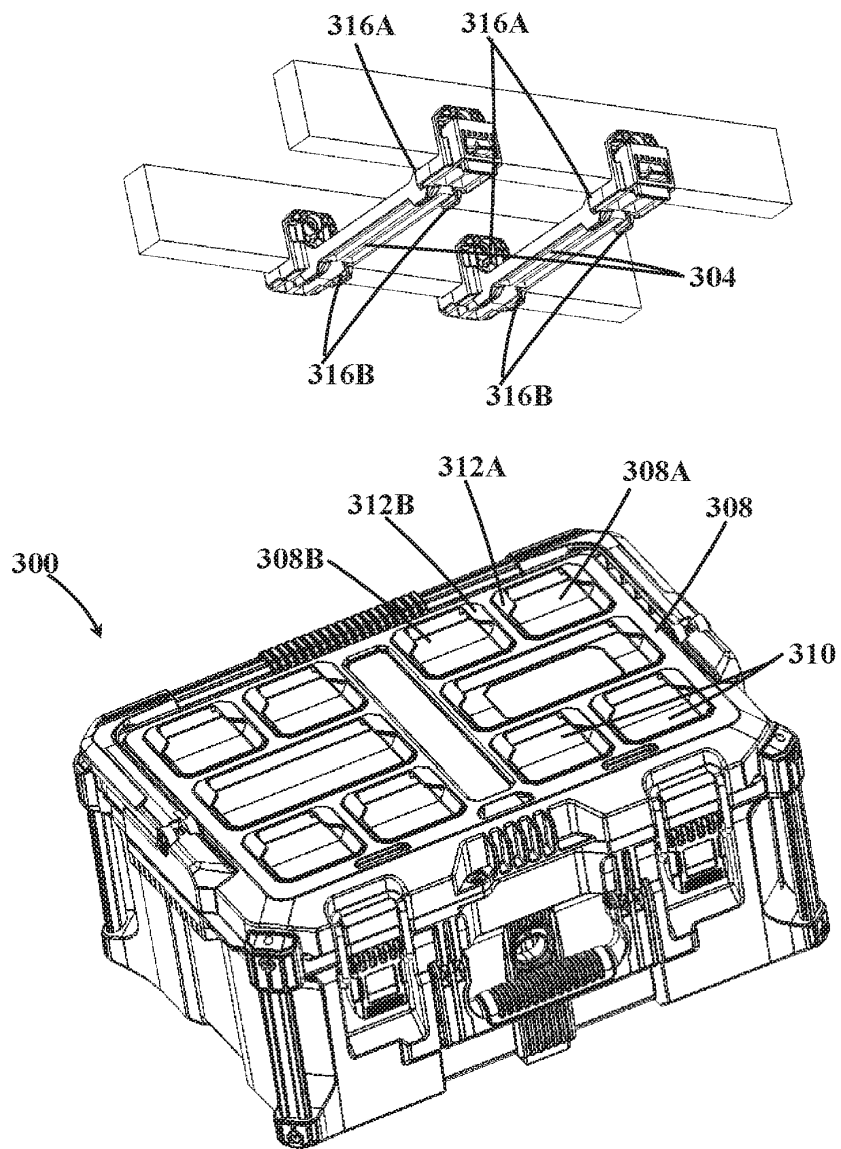


Fig. 12C

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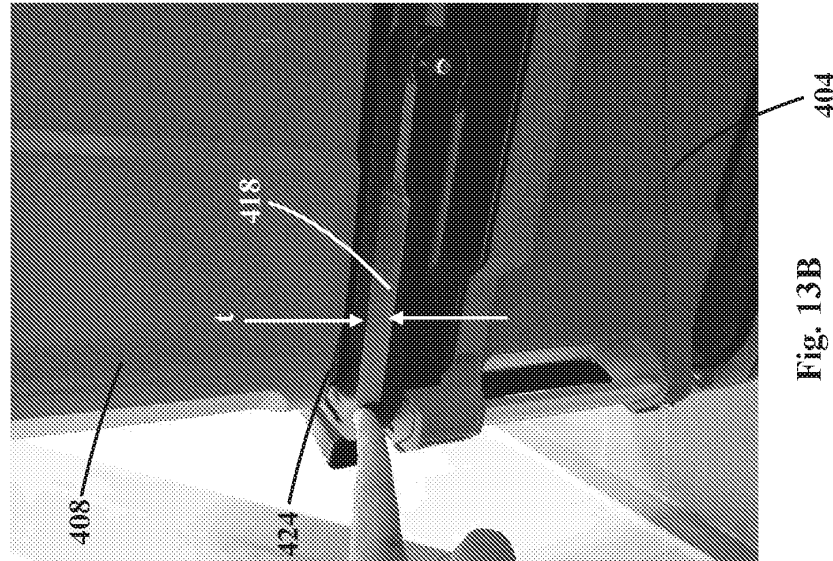


Fig. 13B

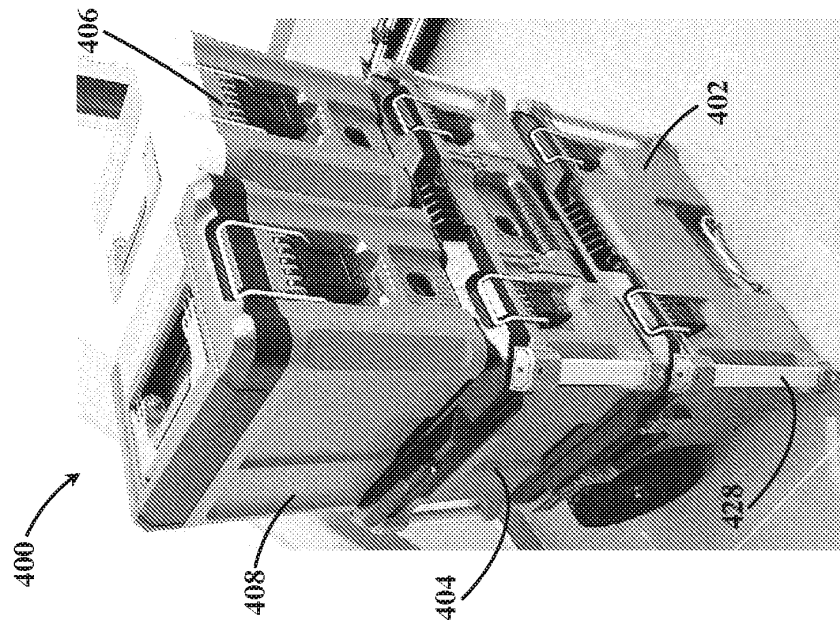


Fig. 13A

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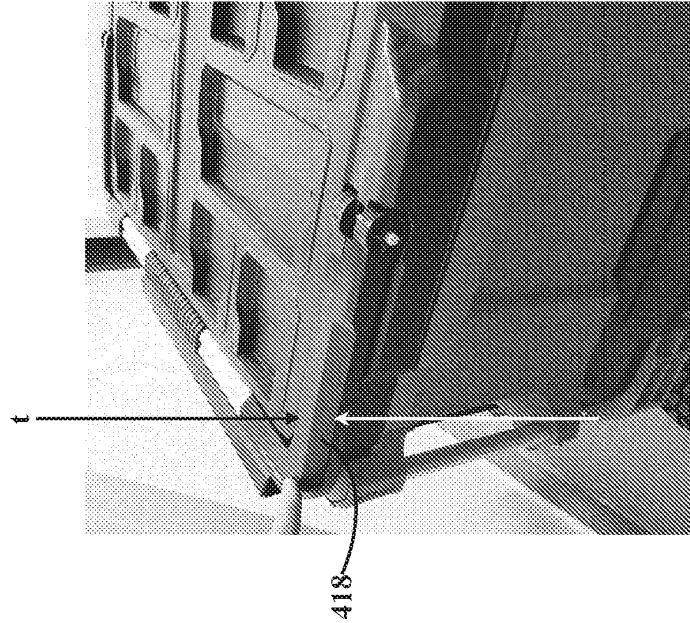


Fig. 13D

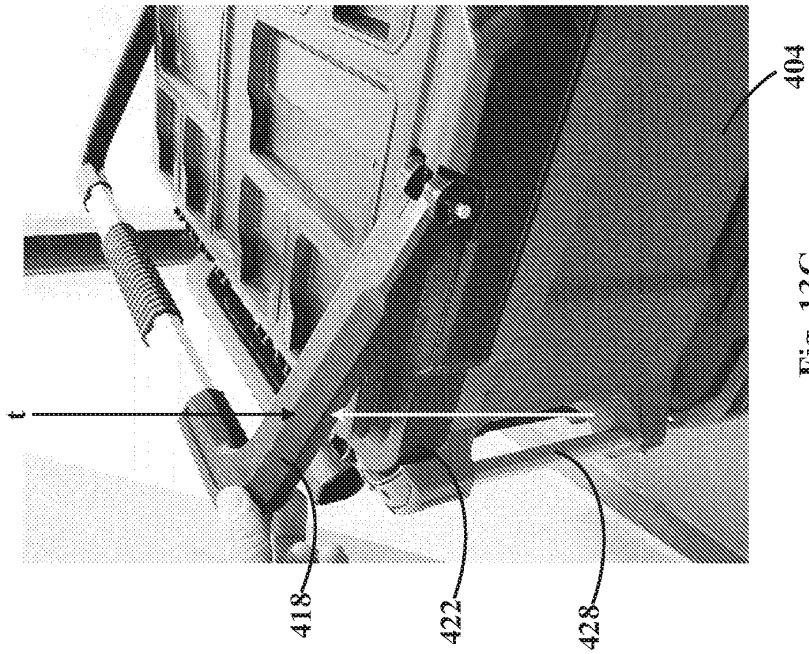


Fig. 13C

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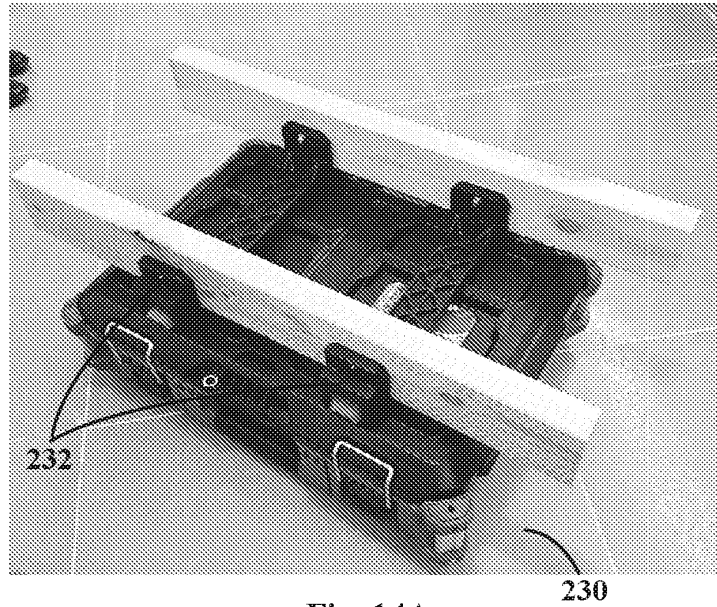


Fig. 14A

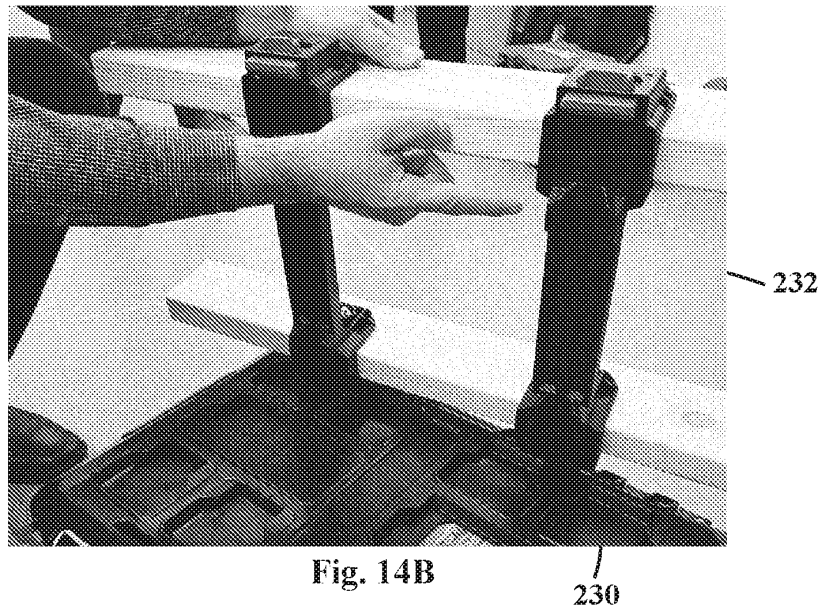
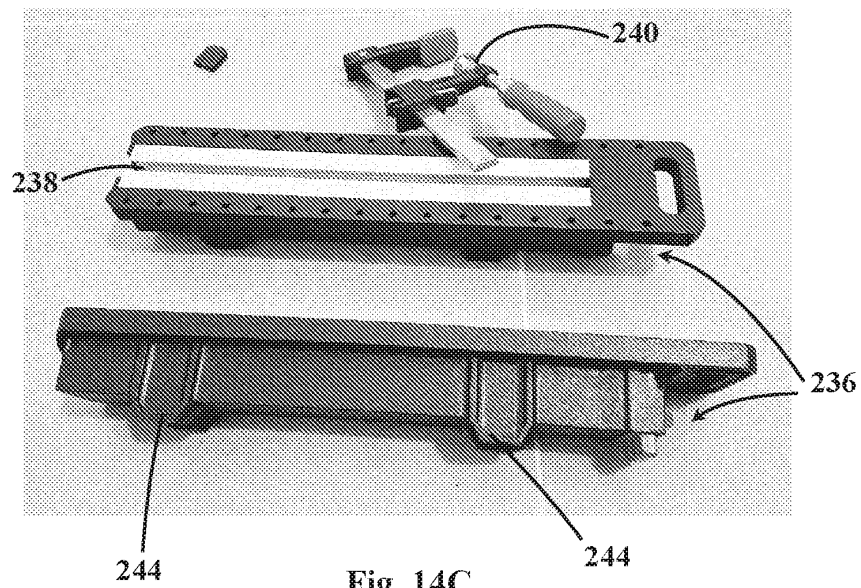


Fig. 14B

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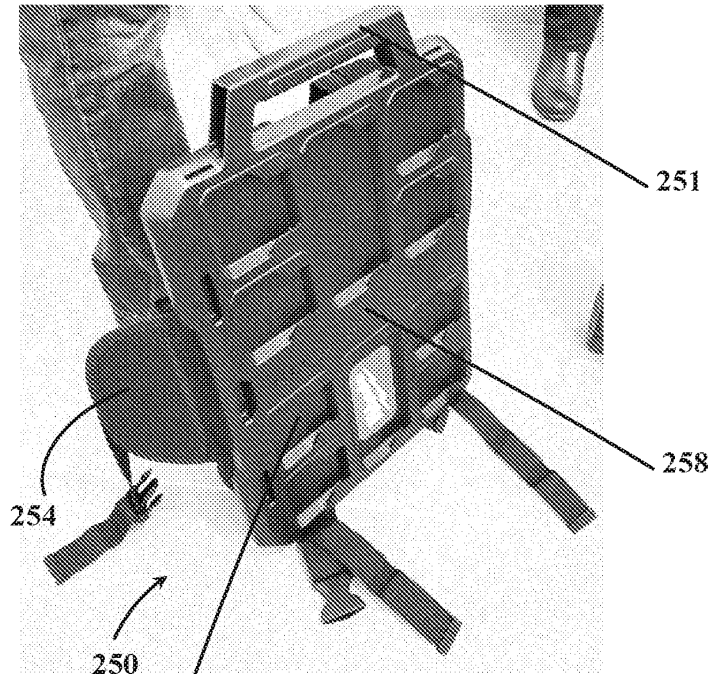


Fig. 15A

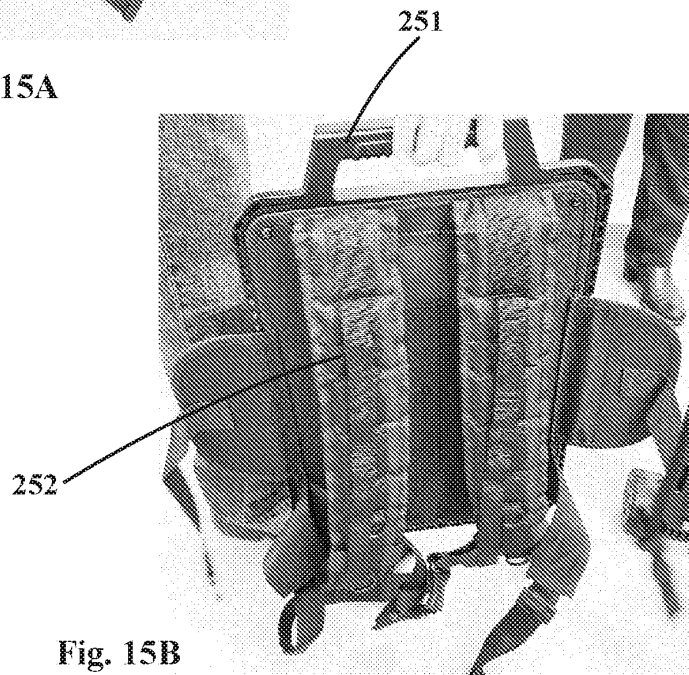


Fig. 15B

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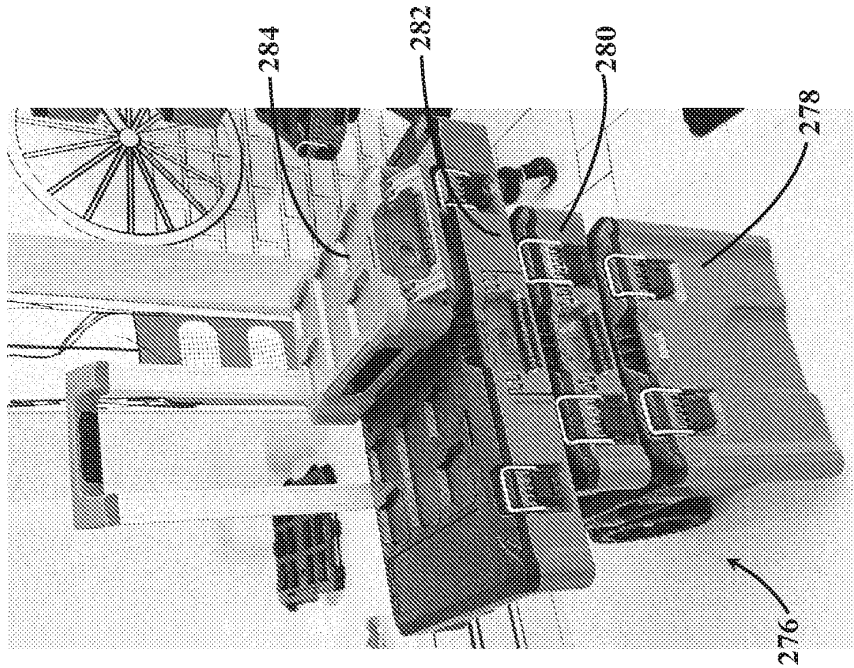


Fig. 16B

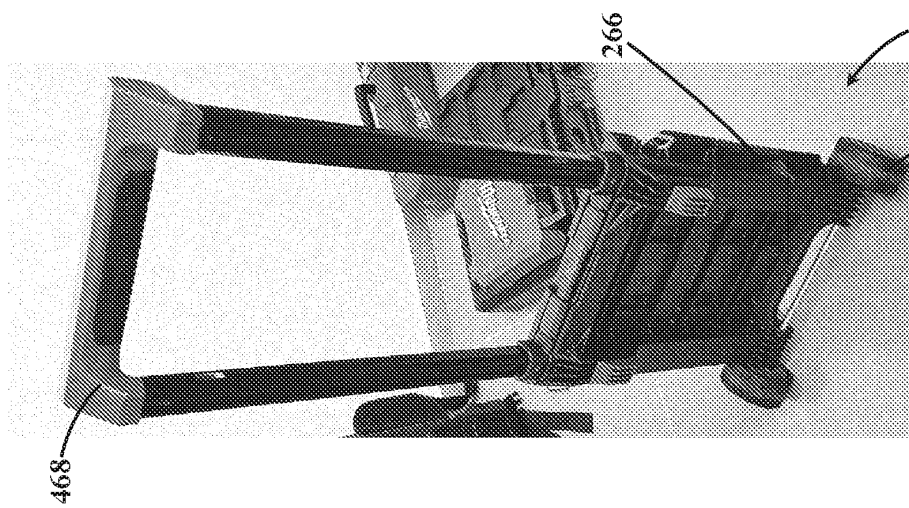


Fig. 16A

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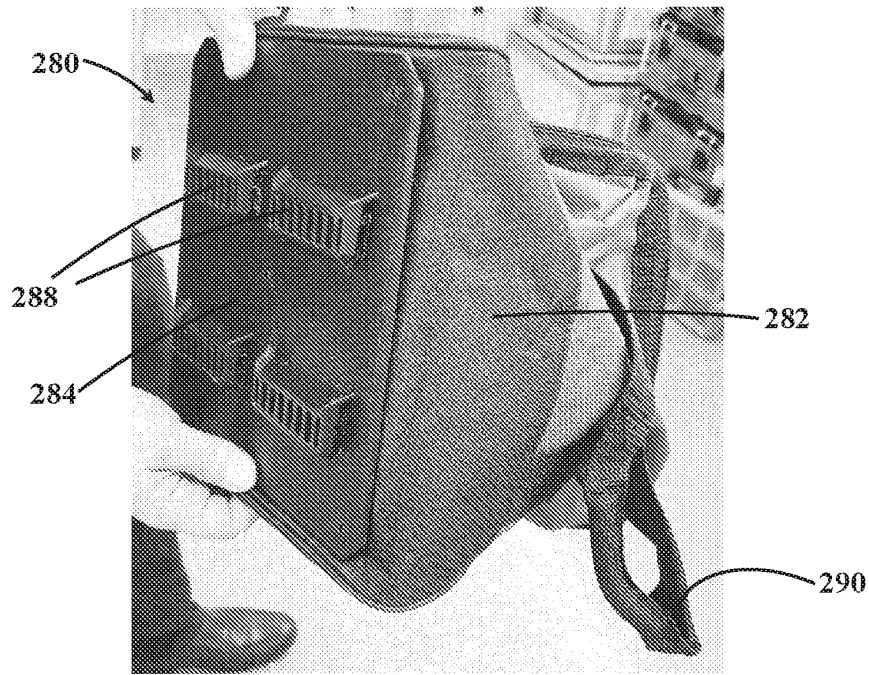


Fig. 17

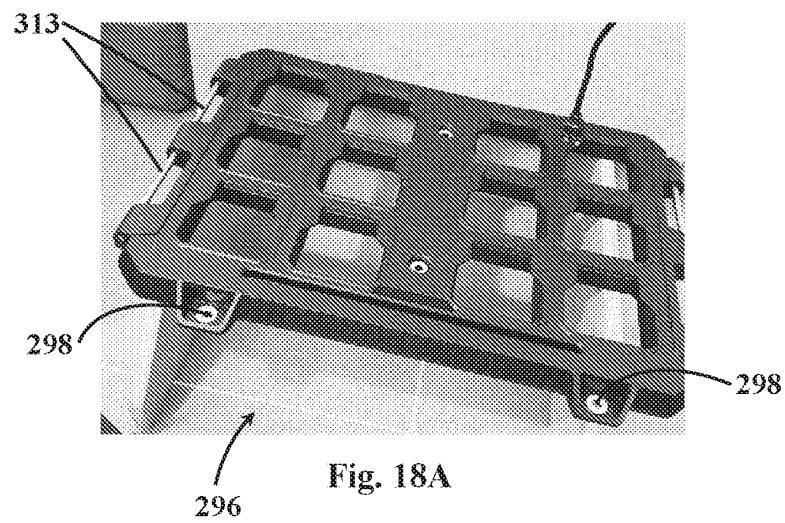


Fig. 18A

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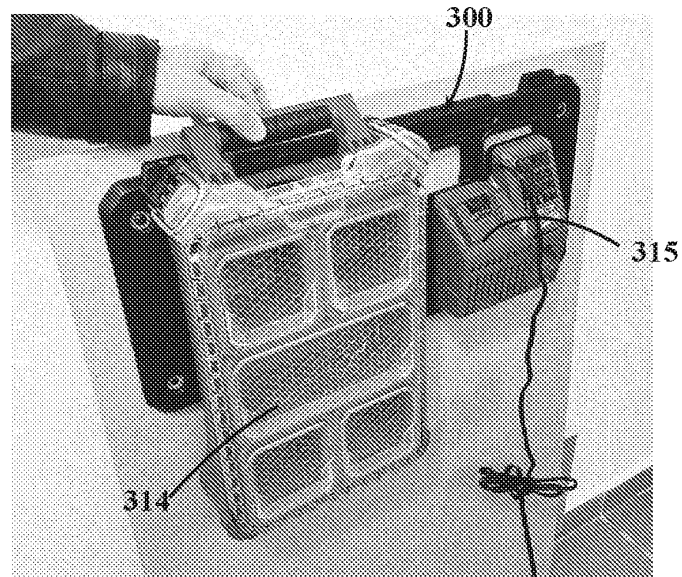


Fig. 18B

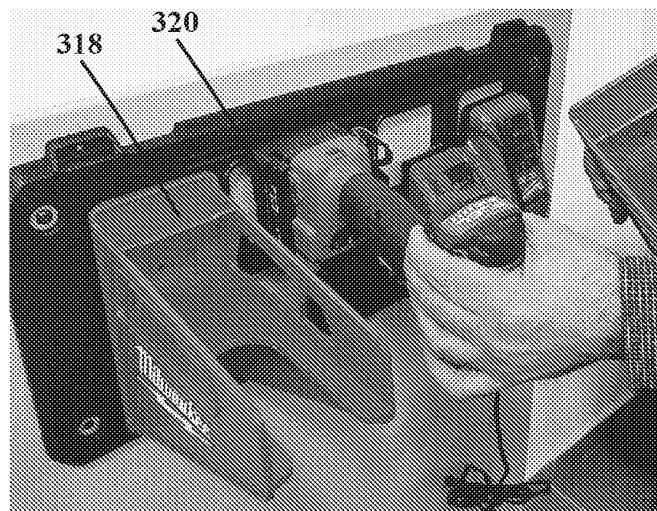


Fig. 18C

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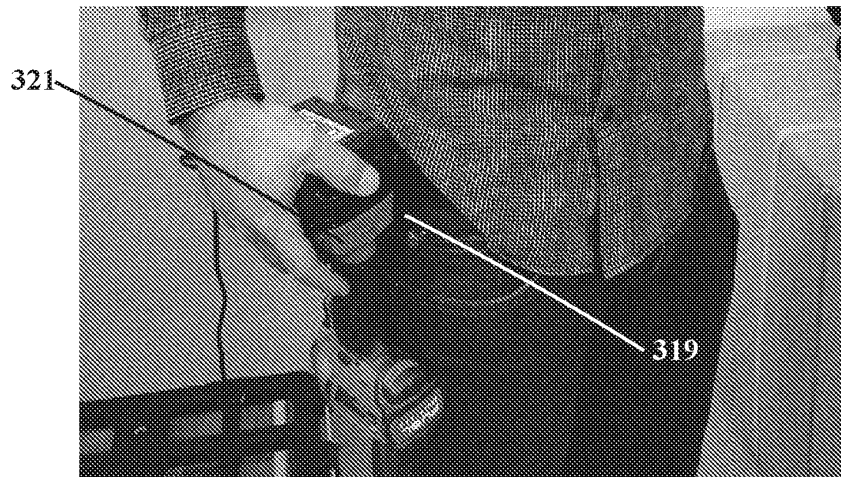


Fig. 19

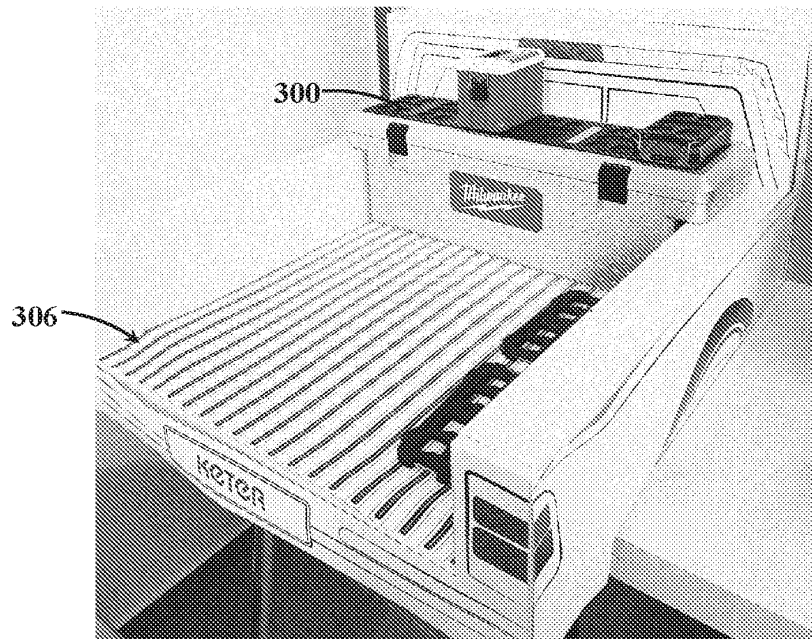


Fig. 20

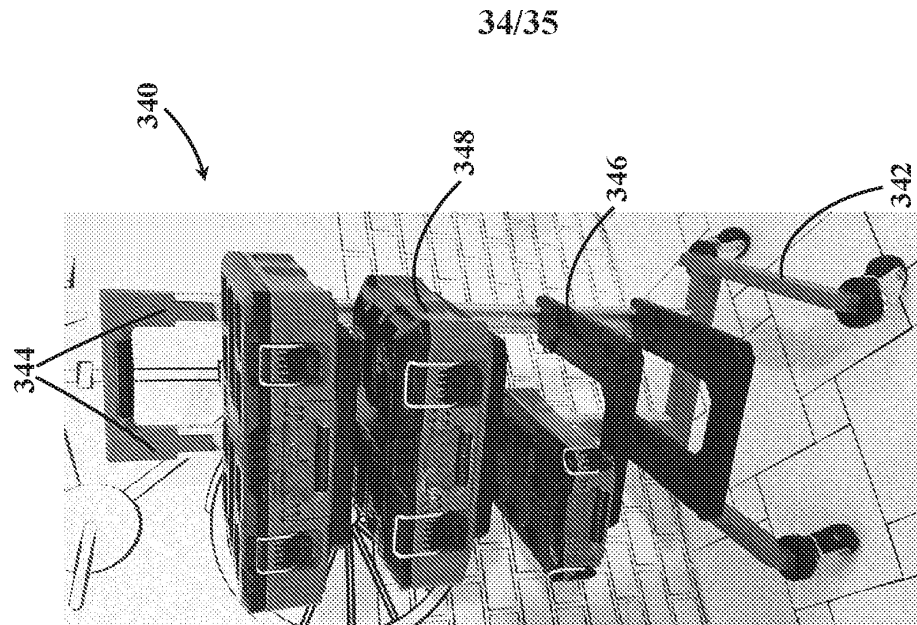


Fig. 22

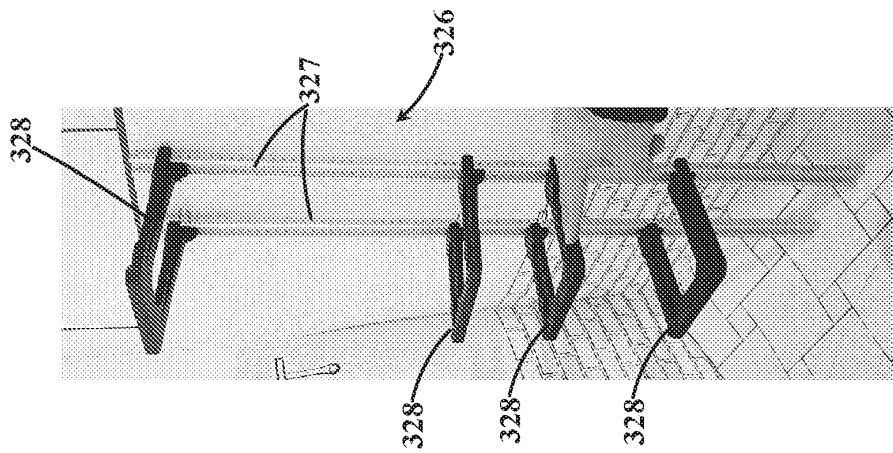


Fig. 21

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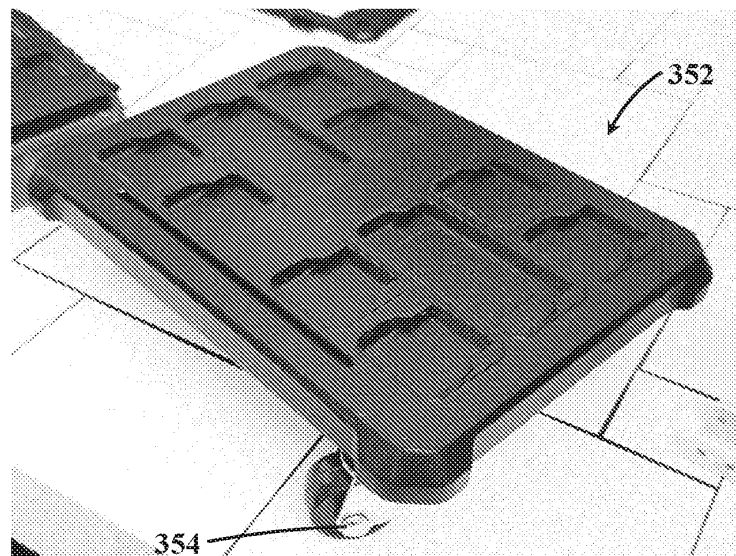


Fig. 23

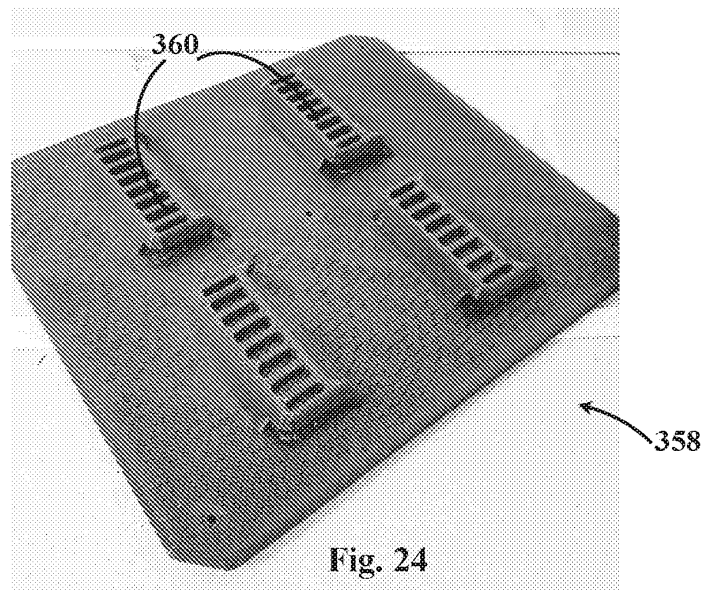


Fig. 24

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL2017/050481

A. CLASSIFICATION OF SUBJECT MATTER IPC (2017.01) B25H 3/02, B65D 21/02		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) IPC (2017.01) B25H 3/02, B65D 21/02		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Databases consulted: Esp@cenet, Google Patents, PatBase, Orbit		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011155613 A KOENIG 30 Jun 2011 (2011/06/30) whole	1,2,4,5
Y	whole	3,8-66
X	US 20110139665 A MADSEN 16 Jun 2011 (2011/06/16) whole	1
Y	CN 2608238 A BAO JIANGANG 31 Mar 2004 (2004/03/31) whole	3,8-66
Y	US 2004195793 A SULLIVAN 07 Oct 2004 (2004/10/07) whole	50-66
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 20 Aug 2017		Date of mailing of the international search report 20 Aug 2017
Name and mailing address of the ISA: Israel Patent Office Technology Park, Bldg.5, Malcha, Jerusalem, 9695101, Israel Facsimile No. 972-2-5651616		Authorized officer GUTKIN Solomon Telephone No. 972-2-5651763

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL2017/050481

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 20130127129 A BENSMAN 23 May 2013 (2013/05/23) whole	1-66
A	US 2002000440 A SAGOL 01 Jan 2002 (2002/01/01) whole	1-66
A	US 5240264 B WILLIAMS 31 Aug 1993 (1993/08/31) whole	50-66

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/IL2017/050481

Patent document cited search report			Publication date	Patent family member(s)	Publication Date
US	2011155613	A	30 Jun 2011	NONE	
US	20110139665	A	16 Jun 2011	NONE	
CN	2608238	A	31 Mar 2004	NONE	
US	2004195793	A	07 Oct 2004	NONE	
US	20130127129	A	23 May 2013	NONE	
US	2002000440	A	01 Jan 2002	NONE	
US	5240264	B	31 Aug 1993	NONE	

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 066042-5626-WO01	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2018/033161	International filing date (<i>day/month/year</i>) 17 May 2018 (17.05.2018)	(Earliest) Priority Date (<i>day/month/year</i>) 17 May 2017 (17.05.2017)
Applicant MILWAUKEE ELECTRIC TOOL CORPORATION et al.		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of :

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 21
- ☒ as suggested by the applicant.
- ☐ as selected by this Authority, because the applicant failed to suggest a figure.
- ☐ as selected by this Authority, because this figure better characterizes the invention.
- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2018/033161**A. CLASSIFICATION OF SUBJECT MATTER****B25H 3/02(2006.01)i, A45F 3/04(2006.01)i, A45C 13/38(2006.01)i, B25H 3/06(2006.01)i, A45F 3/00(2006.01)i**

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B25H 3/02; B62C 1/00; B62B 1/00; B65D 21/00; A45F 3/04; B62B 3/00; A45F 3/14; A45C 13/38; B25H 3/06; A45F 3/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & keywords: container, stack, lid, projection, recess, backpack, cart, channel, and wing

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009-0071990 A1 (JARDINE et al.) 19 March 2009 See paragraphs [0034]-[0036], [0047], [0055] figures 1-3, 6.	1-3
Y		4-7
Y	US 2011-0155613 A1 (KOENIG et al.) 30 June 2011 See paragraphs [0050], [0053], [0056], [0095], [0103]-[0106] and figures 2-5, 7, 10, 11.	4-20
Y	US 2004-0195793 A1 (SULLIVAN et al.) 07 October 2004 See paragraphs [0055], [0056] and figures 9, 11.	8-20
A	US 2003-0205877 A1 (VERNA et al.) 06 November 2003 See paragraph [0044] and figures 2, 9.	1-20
A	US 2007-0194543 A1 (DUVIGNEAU, NIKOLAI) 23 August 2007 See paragraphs [0047]-[0061] and figures 1-3.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

06 August 2018 (06.08.2018)

Date of mailing of the international search report

06 August 2018 (06.08.2018)

Name and mailing address of the ISA/KR

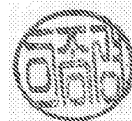
International Application Division
Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon, 35208, Republic of Korea

Facsimile No. +82-42-481-8578

Authorized officer

LEE, Jong Kyung

Telephone No. +82-42-481-3360



Form PCT/ISA/210 (second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2018/033161

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009-0071990 A1	19/03/2009	None	
US 2011-0155613 A1	30/06/2011	AT 546373 T CA 2735679 A1 CA 2735679 C CN 102137795 A CN 102137795 B EP 2315701 A1 EP 2315701 B1 US 8875888 B2 WO 2011-000385 A1	15/03/2012 06/01/2011 23/08/2016 27/07/2011 06/03/2013 04/05/2011 22/02/2012 04/11/2014 06/01/2011
US 2004-0195793 A1	07/10/2004	US 2006-0119060 A1 US 6983946 B2	08/06/2006 10/01/2006
US 2003-0205877 A1	06/11/2003	CA 2425195 A1 CA 2427309 A1 MX PA03003872 A MX PA03003873 A US 2003-0205495 A1 US 6953116 B2	03/11/2003 03/11/2003 21/04/2004 12/08/2004 06/11/2003 11/10/2005
US 2007-0194543 A1	23/08/2007	CA 2547142 A1 CN 101209150 A CN 102150986 A EP 1724069 A2 EP 1724069 A3 GB 2445216 A US 2007-0012694 A1 US 7503569 B2	16/11/2006 02/07/2008 17/08/2011 22/11/2006 25/03/2009 02/07/2008 18/01/2007 17/03/2009

Form PCT/ISA/210 (patent family annex) (January 2015)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

CHESLOCK, Alan, C.

Michael Best & Friedrich LLP 100 East Wisconsin Avenue,
Suite 3300 Milwaukee, WI 53202-4108 USA

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) **06 August 2018 (06.08.2018)**

Applicant's or agent's file reference
066042-5626-WO01

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/US2018/033161

International filing date (day/month/year)
17 May 2018 (17.05.2018)

Priority date (day/month/year)
17 May 2017 (17.05.2017)

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

B25H 3/02(2006.01)i, A45F 3/04(2006.01)i, A45C 13/38(2006.01)i, B25H 3/06(2006.01)i, A45F 3/00(2006.01)i

Applicant

MILWAUKEE ELECTRIC TOOL CORPORATION et al.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/KR
International Application Division
Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon,
35208, Republic of Korea
Facsimile No. +82-42-481-8578



Date of completion of this opinion

06 August 2018 (06.08.2018)

Authorized officer

LEE, Jong Kyung

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Form PCT/ISA/237 (cover sheet) (January 2015)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2018/033161

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of :

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:

- a. ☐ forming part of the international application as filed:
☐ in the form of an Annex C/ST.25 text file.
☐ on paper or in the form of an image file.
- b. ☐ furnished together with the international application under PCT Rule 13*ter*.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
- c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
☐ in the form of an Annex C/ST.25 text file (Rule 13*ter*.1(a)).
☐ on paper or in the form of an image file (Rule 13*ter*.1(b) and Administrative Instructions, Section 713).

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2018/033161

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	3-20	YES
	Claims	1,2	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations :

Reference is made to the following documents:

D1: US 2009-0071990 A1 (JARDINE et al.) 19 March 2009

D2: US 2011-0155613 A1 (KOENIG et al.) 30 June 2011

D3: US 2004-0195793 A1 (SULLIVAN et al.) 07 October 2004

1. Novelty and Inventive Step

1.1 Independent Claim 1

D1, which is considered to represent the most relevant state of the art, discloses a quick release backpack system (100) comprising: shoulder straps (132, 134); a mounting panel (110) coupled to the shoulder straps (132, 134) and configured to extend along a user's back when the shoulder straps (132, 134) extend over the user's shoulder; and a container (104) removably coupled to the mounting panel (110), wherein the container (104) slides in a first direction relative to the mounting panel (110) to attach the container (104) to the mounting panel (110) and the container (104) slides in a second direction, opposite the first direction, relative to the mounting panel (110) to remove the container (104) from the mounting panel (110) (see paragraphs [0034], [0035], [0055] and figures 1, 2, 6). As all of the features of claim 1 are disclosed in D1, claim 1 is anticipated by D1. Therefore, claim 1 lacks novelty under PCT Article 33(2).

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2018/033161

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of : Box No. V

1.2 Dependent Claims 2-7

1.2.1 Concerning Claim 2

The additional feature of claim 2 is identical to the feature of D1 in that the shoulder straps (132, 134) are flexible and the mounting panel (110) is rigid (see paragraph [0036] and figures 1, 2). Accordingly, claim 2 is anticipated by D1. Therefore, claim 2 lacks novelty under PCT Article 33(2).

1.2.2 Concerning Claim 3

The additional feature of claim 3 is characterized in that a base is rectangular and the base includes a length and a width, the length being longer than the width (feature 1), wherein first and second directions are parallel to the width (feature 2). D1 discloses that the mounting panel (110) may have a rectangular shape with a length and a width, the length being longer than the width, which corresponds to feature 1 (see paragraph [0047] and figure 3). In addition, feature 2 would be easily conceived from the disclosure of D1 considering that the first and second directions are parallel to the length (see figures 3, 6). Accordingly, claim 3 would have been obvious over D1. Therefore, claim 3 does not involve an inventive step under PCT Article 33(3).

1.2.3 Concerning Claim 4

The additional feature of claim 4 is characterized in that a tool storage container includes a lid and a body, wherein the lid is pivotally coupled to the body. This feature is not disclosed in D1. However, D2 discloses that an upper container includes a lid (8) and a body (6), wherein the lid (8) is pivotally coupled to the body (6) (see paragraphs [0050], [0053] and figures 2, 5). D1 and D2 are concerned with mutually related technical fields and there is no need for fundamental changes in the key features or for a new technical idea in combining the subject matters of D1 and D2. Accordingly, claim 4 would have been obvious over D1 in view of D2. Therefore, claim 4 does not involve an inventive step under PCT Article 33(3).

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Form PCT/ISA/237 (Supplemental Box) (January 2015)

Supplemental Box

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1.2.4 Concerning Claim 5

The additional feature of claim 5 is identical to the feature of D2 in that the lid (8) and the body (6) are rigid (see figures 2, 5). Accordingly, claim 5 would have been obvious over D1 in view of D2. Therefore, claim 5 does not involve an inventive step under PCT Article 33(3).

1.2.5 Concerning Claim 6

The additional feature of claim 6 is characterized in that the body includes a bottom surface opposite the lid, wherein the bottom surface includes a projection, wherein a base includes a recess, and wherein the projection is received in the recess as a tool storage container slides in a first direction relative to the base to attach the tool storage container to the base. This feature would be easily conceived from the disclosure of D2 considering that the body (6) includes a bottom surface (56) opposite the lid (8), wherein the bottom surface (56) includes an engaging projection (55), wherein a lower container (1) includes an engaging recess (54, 54b), and wherein the engaging projection (55) is received in the engaging recess (54, 54b) as the upper container (1) slides in a first direction relative to the lower container (1) to attach the upper container (1) to the lower container (1) (see paragraphs [0056], [0095] and figures 3-5, 10, 11). Accordingly, claim 6 would have been obvious over D1 in view of D2. Therefore, claim 6 does not involve an inventive step under PCT Article 33(3).

1.2.6 Concerning Claim 7

The additional feature of claim 7 is characterized in further comprising a channel between the projection and the base, the channel including an open end and a closed end, wherein the recess of the base includes wings that are received in the channel when the tool storage container is attached to the base. This feature would be easily conceived from the disclosure of D2 considering that the projection (55) includes a locking foot (57b) having a rear-engaging section (62), wherein the rear-engaging section (62) comes into locking engagement with a rear-engaging projection (58) of the engaging recess (54b) when the upper container (1) is attached to the lower container (1) (see paragraphs [0103]-[0106] and figures 3-5, 10, 11). Accordingly, claim 7 would have been obvious over D1 in view of D2. Therefore, claim 7 does not involve an inventive step under PCT Article 33(3).

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1.3 Independent Claim 8

D3, which is considered to be the closest prior art to the subject matter of claim 8, discloses an apparatus (80) having a wheeled base (60), comprising: a pair of removable wheels (72) configured to support the wheeled base (60) on a surface such that the wheeled base (60) can roll along the surface; a frame (61) including a top side and a bottom side opposite the top side; and a storage container (21) removably coupled to the top side of the frame (61) (see paragraphs [0055], [0056] and figures 9, 11). Claim 8 differs from D3 in that: a plurality of wheels of claim 8 are adjacent a bottom side (difference 1); and a tool storage container of claim 8 slides in a first direction relative to a base and generally parallel to a top side to attach the tool storage container to the base, wherein the tool storage container slides in a second direction, opposite the first direction, relative to the base and generally parallel to the top side to remove the tool storage container from the base (difference 2). Difference 1 would be easily conceived from the disclosure of D3 considering that the pair of removable wheels (72) are between the top and bottom sides (see figure 9). In addition, difference 2 would be easily conceived from the disclosure of D2 considering that an upper container (1) slides a first direction relative to a lower container (1) and parallel to a top side to attach the upper container (1) to the lower container (1), wherein the upper container (1) slides in a second direction, opposite the first direction, relative to the lower container (1) and parallel to the top side to remove the upper container (1) from the lower container (1) (see paragraph [0050] and figures 10, 11). D3 and D2 are concerned with mutually related technical fields and there is no need for fundamental changes in the key features or for a new technical idea in combining the subject matters of D3 and D2. Accordingly, claim 8 would have been obvious over D3 in view of D2. Therefore, claim 8 does not involve an inventive step under PCT Article 33(3).

1.4 Dependent Claims 9-14

1.4.1 Concerning Claim 9

The additional feature of claim 9 is characterized in that the base is rectangular and the base includes a length and a width, the length being longer than the width, wherein the first and second directions are parallel to the width. This feature would be easily conceived from the disclosure of D2 considering that the lower container (1) is rectangular and includes a length

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and a width, the length being longer than the width, wherein the first and second directions are parallel to the width (see figures 7, 10, 11). Accordingly, claim 9 would have been obvious over D3 in view of D2. Therefore, claim 9 does not involve an inventive step under PCT Article 33(3).

1.4.2 Concerning Claim 10

The additional feature of claim 10 is identical to the feature of D2 in that the upper container includes a lid (8) and a body (6), wherein the lid (8) is pivotally coupled to the body (6) (see paragraphs [0050], [0053] and figure 2). Accordingly, claim 10 would have been obvious over D3 in view of D2. Therefore, claim 10 does not involve an inventive step under PCT Article 33(3).

1.4.3 Concerning Claim 11

The additional feature of claim 11 is identical to the feature of D2 in that the lid (8) and the body (6) are rigid (see figures 2, 5). Accordingly, claim 11 would have been obvious over D3 in view of D2. Therefore, claim 11 does not involve an inventive step under PCT Article 33(3).

1.4.4 Concerning Claim 12

The additional feature of claim 12 is characterized in that the tool storage container includes a lid and a body, wherein the body includes a bottom surface opposite the lid, wherein the bottom surface includes a projection, wherein the base includes a recess, and wherein the projection is received in the recess as the tool storage container slides in the first direction relative to the base to attach the tool storage container to the base. This feature would be easily conceived from the disclosure of D2 considering that the upper container (1) includes a lid (8) and a body (6), wherein the body (6) includes a bottom surface (56) opposite the lid (8), wherein the bottom surface (56) includes an engaging projection (55), wherein a lower container (1) includes an engaging recess (54, 54b), and wherein the engaging projection (55) is received in the engaging recess (54, 54b) as the upper container (1) slides in the first direction relative to the lower container (1) to attach the upper container (1) to the lower container (1) (see paragraphs [0050], [0056], [0095] and figures 3-5, 10, 11). Accordingly,

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claim 12 would have been obvious over D3 in view of D2. Therefore, claim 12 does not involve an inventive step under PCT Article 33(3).

1.4.5 Concerning Claim 13

The additional feature of claim 13 is characterized in further comprising a channel between the projection and the base, the channel including an open end and a closed end, wherein the recess of the base includes wings that are received in the channel when the tool storage container is attached to the base. This feature would be easily conceived from the disclosure of D2 considering that the projection (55) includes a locking foot (57b) having a rear-engaging section (62), wherein the rear-engaging section (62) comes into locking engagement with a rear-engaging projection (58) of the engaging recess (54b) when the upper container (1) is attached to the lower container (1) (see paragraphs [0103]-[0106] and figures 3-5, 10, 11). Accordingly, claim 13 would have been obvious over D3 in view of D2. Therefore, claim 13 does not involve an inventive step under PCT Article 33(3).

1.4.6 Concerning Claim 14

The additional feature of claim 14 is characterized in that the tool storage container is a first tool storage container, the tool cart further comprising a second tool storage container, the second tool storage container removably coupled to the first tool storage container (feature 1), wherein the second tool storage container slides in the first direction relative to the first tool storage container to attach the second tool storage container to the first tool storage container, and wherein the second tool storage container slides in the second direction relative to the first tool storage container to remove the second tool storage container from the first tool storage container (feature 2). D3 discloses that the storage container (21) is a first tool storage container (21), the apparatus (80) further comprising a second storage container (21') removably coupled to the first storage container (21), which corresponds to feature 1 (see paragraph [0056] and figure 11). In addition, D2 discloses that the upper container (1) slides the first direction relative to the lower container (1) to attach the upper container (1) to the lower container (1), wherein the upper container (1) slides in the second direction relative to the lower container (1) to remove the upper container (1) from the lower container (1), which corresponds to feature 2 (see paragraph [0050] and figures 10, 11). Accordingly, claim 14 would have been obvious over D3 in view of D2. Therefore, claim 14 does not involve an

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inventive step under PCT Article 33(3).

1.5 Independent Claim 15

D3, which is considered to be the closest prior art to the subject matter of claim 15, discloses an apparatus (80) having a wheeled base (60), comprising: a frame (61) including a top side, a bottom side opposite the top side, a first end, and a second end opposite the first end; an adjustable pulling handle (75) extending from the first end; a pair of removable wheels (72); and a storage container (21) removably coupled to the top side of the frame (61) (see paragraphs [0055], [0056] and figures 9, 11). Claim 15 differs from D3 in that: first and second wheels are adjacent a second end (difference 1); and a tool storage container of claim 15 slides in a first direction relative to a base and generally parallel to a top side to attach the tool storage container to the base, wherein the tool storage container slides in a second direction, opposite the first direction, relative to the base and generally parallel to the top side to remove the tool storage container from the base (difference 2). Difference 1 would be easily conceived from the disclosure of D3 considering that the pair of removable wheels (72) are adjacent the first end (see figures 9, 11). In addition, difference 2 would be easily conceived from the disclosure of D2 considering that an upper container (1) slides a first direction relative to a lower container (1) and parallel to a top side to attach the upper container (1) to the lower container (1), wherein the upper container (1) slides in a second direction, opposite the first direction, relative to the lower container (1) and parallel to the top side to remove the upper container (1) from the lower container (1) (see paragraph [0050] and figures 10, 11). D3 and D2 are concerned with mutually related technical fields and there is no need for fundamental changes in the key features or for a new technical idea in combining the subject matters of D3 and D2. Accordingly, claim 15 would have been obvious over D3 in view of D2. Therefore, claim 15 does not involve an inventive step under PCT Article 33(3).

1.6 Dependent Claims 16-20

1.6.1 Concerning Claim 16

The additional feature of claim 16 is characterized in that the base is rectangular and the base includes a length and a width, the length being longer than the width, wherein the first and second directions are parallel to the width. This feature would be easily conceived from

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In case the space in any of the preceding boxes is not sufficient.

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the disclosure of D2 considering that the lower container (1) is rectangular and includes a length and a width, the length being longer than the width, wherein the first and second directions are parallel to the width (see figures 7, 10, 11). Accordingly, claim 16 would have been obvious over D3 in view of D2. Therefore, claim 16 does not involve an inventive step under PCT Article 33(3).

1.6.2 Concerning Claim 17

The additional feature of claim 17 is identical to the feature of D2 in that the upper container includes a lid (8) and a body (6), wherein the lid (8) is pivotally coupled to the body (6) (see paragraphs [0050], [0053] and figure 2). Accordingly, claim 17 would have been obvious over D3 in view of D2. Therefore, claim 17 does not involve an inventive step under PCT Article 33(3).

1.6.3 Concerning Claim 18

The additional feature of claim 18 is characterized in that the tool storage container includes a lid and a body, wherein the body includes a bottom surface opposite the lid, wherein the bottom surface includes a projection, wherein the base includes a recess, and wherein the projection is received in the recess as the tool storage container slides in the first direction relative to the base to attach the tool storage container to the base. This feature would be easily conceived from the disclosure of D2 considering that the upper container (1) includes a lid (8) and a body (6), wherein the body (6) includes a bottom surface (56) opposite the lid (8), wherein the bottom surface (56) includes an engaging projection (55), wherein a lower container (1) includes an engaging recess (54, 54b), and wherein the engaging projection (55) is received in the engaging recess (54, 54b) as the upper container (1) slides in the first direction relative to the lower container (1) to attach the upper container (1) to the lower container (1) (see paragraphs [0050], [0056], [0095] and figures 3-5, 10, 11). Accordingly, claim 18 would have been obvious over D3 in view of D2. Therefore, claim 18 does not involve an inventive step under PCT Article 33(3).

1.6.4 Concerning Claim 19

The additional feature of claim 19 is characterized in further comprising a channel between

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the projection and the base, the channel including an open end and a closed end, wherein the recess of the base includes wings that are received in the channel when the tool storage container is attached to the base. This feature would be easily conceived from the disclosure of D2 considering that the projection (55) includes a locking foot (57b) having a rear-engaging section (62), wherein the rear-engaging section (62) comes into locking engagement with a rear-engaging projection (58) of the engaging recess (54b) when the upper container (1) is attached to the lower container (1) (see paragraphs [0103]-[0106] and figures 3-5, 10, 11). Accordingly, claim 19 would have been obvious over D3 in view of D2. Therefore, claim 19 does not involve an inventive step under PCT Article 33(3).

1.6.5 Concerning Claim 20

The additional feature of claim 20 is characterized in that the tool storage container is a first tool storage container, the tool cart further comprising a second tool storage container, the second tool storage container removably coupled to the first tool storage container (feature 1), wherein the second tool storage container slides in the first direction relative to the first tool storage container to attach the second tool storage container to the first tool storage container, and wherein the second tool storage container slides in the second direction relative to the first tool storage container to remove the second tool storage container from the first tool storage container (feature 2). D3 discloses that the storage container (21) is a first tool storage container (21), the apparatus (80) further comprising a second storage container (21') removably coupled to the first storage container (21), which corresponds to feature 1 (see paragraph [0056] and figure 11). In addition, D2 discloses that the upper container (1) slides the first direction relative to the lower container (1) to attach the upper container (1) to the lower container (1), wherein the upper container (1) slides in the second direction relative to the lower container (1) to remove the upper container (1) from the lower container (1), which corresponds to feature 2 (see paragraph [0050] and figures 10, 11). Accordingly, claim 20 would have been obvious over D3 in view of D2. Therefore, claim 20 does not involve an inventive step under PCT Article 33(3).

2. Industrial Applicability

Claims 1-20 are industrially applicable under PCT Article 33(4).

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 066749-2282	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2019/014940	International filing date (<i>day/month/year</i>) 24 January 2019 (24.01.2019)	(Earliest) Priority Date (<i>day/month/year</i>) 24 January 2018 (24.01.2018)
Applicant MILWAUKEE ELECTRIC TOOL CORPORATION		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of :

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1
- ☒ as suggested by the applicant.
- ☐ as selected by this Authority, because the applicant failed to suggest a figure.
- ☐ as selected by this Authority, because this figure better characterizes the invention.
- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2019/014940**A. CLASSIFICATION OF SUBJECT MATTER****B25H 3/02(2006.01)i, B65D 21/02(2006.01)i**

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B25H 3/02; B65D 21/00; B65D 21/02; B65D 21/036; B65D 55/14; B65D 85/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: container assembly, coupler, latch, latch receptacle, coupling wall, rib wall

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2017-191628 A1 (KETTER PLASTIC LTD.) 09 November 2017 See page 24, line 3 - page 25, line 22 and figures 1-4D, 7A-9B.	1-4
X	US 2011-0139665 A1 (MADSEN, JENS OLE) 16 June 2011 See paragraphs [0050]-[0055] and figures 1-7.	1
A	US 2009-0178946 A1 (PATSTONE et al.) 16 July 2009 See paragraphs [0027]-[0037] and figures 1-3.	1-4
A	US 2011-0155613 A1 (KOENIG et al.) 30 June 2011 See paragraphs [0048]-[0061] and figures 1-4.	1-4
A	US 2013-0127129 A1 (THE STANLEY WORKS ISRAEL LTD.) 23 May 2013 See paragraphs [0034]-[0041] and figures 1-3.	1-4



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

26 July 2019 (26.07.2019)

Date of mailing of the international search report

26 July 2019 (26.07.2019)

Name and mailing address of the ISA/KR

International Application Division
Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon, 35208, Republic of Korea

Facsimile No. +82-42-481-8578

Authorized officer

LEE, Jong Kyung

Telephone No. +82-42-481-3360



Form PCT/ISA/210 (second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2019/014940

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2017-191628 A1	09/11/2017	AU 2017-101718 A4	18/01/2018
		AU 2017-101718 B4	09/08/2018
		AU 2017-260871 A1	21/12/2017
		AU 2017-260871 B2	30/08/2018
		AU 2018-271253 A1	13/12/2018
		CA 2987892 A1	09/11/2017
		CN 107708935 A	16/02/2018
		DE 212017000011 U1	14/02/2018
		EP 3288719 A1	07/03/2018
		EP 3288719 A4	22/08/2018
		MX 2017016254 A	15/08/2018
		US 2018-0161975 A1	14/06/2018
		US 2018-0186513 A1	05/07/2018
		US 2019-0106244 A1	11/04/2019
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		EP 2346741 A4	13/03/2013
		EP 2346741 B1	08/04/2015
		WO 2009-140965 A1	26/11/2009
US 2009-0178946 A1	16/07/2009	EP 2238039 A2	13/10/2010
		EP 2238039 A4	28/03/2012
		EP 2238039 B1	04/09/2013
		EP 2682347 A1	08/01/2014
		EP 2682347 B1	22/07/2015
		ES 2437338 T3	10/01/2014
		ES 2547833 T3	08/10/2015
		US 8789699 B2	29/07/2014
		WO 2009-091602 A2	23/07/2009
		WO 2009-091602 A3	24/09/2009
US 2011-0155613 A1	30/06/2011	AT 546373 T	15/03/2012
		CA 2735679 A1	06/01/2011
		CA 2735679 C	23/08/2016
		CN 102137795 A	27/07/2011
		CN 102137795 B	06/03/2013
		EP 2315701 A1	04/05/2011
		EP 2315701 B1	22/02/2012
		US 8875888 B2	04/11/2014
		WO 2011-000385 A1	06/01/2011
US 2013-0127129 A1	23/05/2013	CA 2796714 A1	22/05/2013
		CN 103129807 A	05/06/2013
		CN 103129807 B	02/03/2016
		EP 2596920 A2	29/05/2013
		EP 2596920 A3	27/08/2014
		EP 2596920 B1	06/06/2018
		IL 223135 A	28/02/2013
		US 8979100 B2	17/03/2015

Form PCT/ISA/210 (patent family annex) (January 2015)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
CAMPBELL, Derck H.

1000 North Water Street Suite 1700 Milwaukee, Wisconsin
53202 USA

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) **26 July 2019 (26.07.2019)**

Applicant's or agent's file reference
066749-2282

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/US2019/014940

International filing date (day/month/year)
24 January 2019 (24.01.2019)

Priority date (day/month/year)
24 January 2018 (24.01.2018)

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

B25H 3/02(2006.01)i, B65D 21/02(2006.01)i

Applicant
MILWAUKEE ELECTRIC TOOL CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/KR
International Application Division
Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon,
35208, Republic of Korea
Facsimile No. +82-42-481-8578



Date of completion of this opinion

26 July 2019 (26.07.2019)

Authorized officer

LEE, Jong Kyung

Telephone No. +82-42-481-3360



Form PCT/ISA/237 (cover sheet) (January 2015)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2019/014940

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of :

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:

- a. ☐ forming part of the international application as filed:
☐ in the form of an Annex C/ST.25 text file.
☐ on paper or in the form of an image file.
- b. ☐ furnished together with the international application under PCT Rule 13*ter*.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
- c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
☐ in the form of an Annex C/ST.25 text file (Rule 13*ter*.1(a)).
☐ on paper or in the form of an image file (Rule 13*ter*.1(b) and Administrative Instructions, Section 713).

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2019/014940

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1-4	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-4	NO
Industrial applicability (IA)	Claims	1-4	YES
	Claims	NONE	NO

2. Citations and explanations :

Reference is made to the following documents:

D1: WO 2017-191628 A1 (KETER PLASTIC LTD.) 09 November 2017

D2: US 2011-0139665 A1 (MADSEN, JENS OLE) 16 June 2011

I. Novelty and Inventive Step (PCT Article 33(2) and (3))

1. Claim 1

D1, which is considered to represent the most relevant state of the art, discloses a container assembly comprising: a first container (26) having a projecting portion (56) extending from a first face of the first container (26), the projecting portion (56) having a locking tongue (60) laterally projecting rearwards and having a slanted surface (62) and a locking latch (70); and a second container (28) having a recess (50) formed on a lid (L) of the second container (28) and configured to interface with the locking latch (70) and a locking locating (32) having a locking rib (36) configured to arrest the locking tongue (60) (see page 24, line 3 - page 25, line 22 and figures 1-4D).

As all of the features of claim 1 are disclosed in D1, claim 1 is anticipated by D1.

Therefore, claim 1 lacks novelty.

(Note: With respect to the Novelty and Inventive step, claim 1 is also anticipated by D2 since D2 discloses a storage arrangement comprising: a top case (10) having a catch flange (40) and a locking tap (19); and a lower case (11) having a recess (no sign, see figures 5-7) configured to interface with the locking tap (19) and a catch flange (14) configured to catch the catch flange (40) of the top case (10) (see paragraphs [0050]-[0055] and figures 1-7)).

Continued on Supplemental Box

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2019/014940

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of : Box No. V

2. Claims 2-4

The additional feature of claim 2 is identical to a pair of facing locking ribs (248) in D1 (see figures 7A-9B).

The additional features of claims 3-4 are identical to a plurality of pairs of facing locking ribs (248) configured to arrest engagement elements (240) in D1 (see figures 7A-9B).

Accordingly, claims 2-4 are anticipated by D1.

Therefore, claims 2-4 lack novelty.

II. Industrial Applicability (PCT Article 33(4))

Claims 1-4 are industrially applicable.

PATENT COOPERATION TREATY

Article 19 - 23/10/19
Demand - 24/04/20
NP - 24/12/20

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:
SOKOL, Edith
REINHOLD COHN & PARTNERS
P.O. Box 13239
6113102 Tel Aviv
ISRAEL

RECEIVED
29.08.2019
REINHOLD COHN AND PARTNERS

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing (day/month/year)		23 August 2019 (23-08-2019)
Applicant's or agent's file reference 2635353HDM <i>HADAS</i>		FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/IL2019/050689		International filing date (day/month/year) 20 June 2019 (20-06-2019)
Applicant KETER PLASTIC LTD.		

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

How? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70

For more detailed instructions, see PCT Applicant's Guide, International Phase, paragraphs 9.004 - 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

The applicant may **submit comments on an informal basis on the written opinion of the International Searching Authority** to the International Bureau. These comments will be made available to the public after international publication. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established.

Shortly after the expiration of **18 months from the priority date, the international application will be published** by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for **entry into the national phase** before those designated Offices. In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months. For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

Within **22 months from the priority date, the applicant may request that a supplementary international search be carried out** by a different International Searching Authority that offers this service (Rule 45*bis*.1). The procedure for requesting supplementary international search is described in the *PCT Applicant's Guide*, International Phase, paragraphs 8.006-8.032.

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040 Fax: (+31-70) 340-3016	Authorized officer WEIßE, Mario Tel: +49 (0)89 2399-2350
--	--

Form PCT/ISA/220 (July 2017)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2635353HDM	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IL2019/050689	International filing date (day/month/year) 20 June 2019 (20-06-2019)	(Earliest) Priority Date (day/month/year) 24 June 2018 (24-06-2018)
Applicant KETER PLASTIC LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6**bis**(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☐ the text is approved as submitted by the applicant
☒ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1a
☒ as suggested by the applicant
☐ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention
- b. ☐ none of the figures is to be published with the abstract

Form PCT/ISA/210 (first sheet) (January 2015)

INTERNATIONAL SEARCH REPORTInternational application No.
PCT/IL2019/050 689**Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)**

The present disclosure concerns a hand truck comprising a frame (14) having a first end, and a second end (22) configured with a wheel set (26, 26), and a ledge (28) extending at said second end (22), wherein one or both of the frame and the ledge is configured with an articulation arrangement for detachably attaching thereto a utility unit, the articulation arrangement extending parallel to a plane of the respective frame or ledge.

Form PCT/ISA/210 (continuation of first sheet (3)) (July2009)

INTERNATIONAL SEARCH REPORT

International application No

PCT/IL2019/050689

A. CLASSIFICATION OF SUBJECT MATTER

INV. B62B1/14 B62B3/04
ADD.

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B62B

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

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

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 2 289 671 A2 (STANLEY WORKS ISRAEL [IL]) 2 March 2011 (2011-03-02) paragraph [0006] - paragraph [0017]; figures 1-7, 11A paragraph [0061] - paragraph [0064]; figures 13-16, 19, 20A, 20B -----	1, 3-13, 15-17 2, 14
X	WO 2017/191628 A1 (KETER PLASTIC LTD [IL]) 9 November 2017 (2017-11-09) cited in the application page 23, line 12 - page 26, line 28; figures 1A-1D, 2A-2C, 3A-3D-4A-4D-6A-6D6A-6D page 26, line 29 - page 30, line 13; figures 7A, 7B, 8A, 8B, 9A-9D, 10A, 10B, 11A, 11B, 16A, 16B ----- - / - -	1-17



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

2 August 2019

Date of mailing of the international search report

23/08/2019

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Jung, Wolfgang

1

Form PCT/ISA/210 (second sheet) (April 2005)

page 1 of 2

INTERNATIONAL SEARCH REPORT

International application No

PCT/IL2019/050689

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	US 5 951 037 A (HSIEH HUNG-CHING [TW] ET AL) 14 September 1999 (1999-09-14) column 2, line 13 - column 5, line 10; figures 1-11	1-3,6, 10-17 4,7,9 5,8
X Y A	----- US 5 797 617 A (LIN SHIOU CHANG [US]) 25 August 1998 (1998-08-25) column 3, line 32 - column 6, line 46; figures 1-7	1,3,4, 6-13, 15-17 4,7,9 2,5,14
X A	----- US 2013/223971 A1 (GRACE IV ROBERT W [US]) 29 August 2013 (2013-08-29) paragraph [0037] - paragraph [0052]; figures 1-5,6,7,11,12,13A-13C	1,3, 10-13, 15-17 2,4-9,14
X A	----- US 2012/160886 A1 (HENNY PAUL [US] ET AL) 28 June 2012 (2012-06-28) paragraph [0023] - paragraph [0029]; figures 1,2,4,5	1-3, 11-13,15 4-10,14, 16,17
X A	----- US 2007/090616 A1 (TOMPKINS MARY [US]) 26 April 2007 (2007-04-26) paragraph [0027] - paragraph [0037]; figures 1-4,8	1-3, 11-13,15 4-10,14, 16,17
X A	----- US 2003/184034 A1 (PFEIFFER MICHAEL [DE]) 2 October 2003 (2003-10-02) paragraph [0040] - paragraph [0046]; figures 1-9	1-3,11, 13,16 4-10,12, 14,15,17

1

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

page 2 of 2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IL2019/050689

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 2289671	A2	02-03-2011	
		AU 2010214655 A1	17-03-2011
		CN 201923584 U	10-08-2011
		EP 2289671 A2	02-03-2011
		EP 2428330 A2	14-03-2012
		EP 2428331 A2	14-03-2012
		EP 2428332 A2	14-03-2012
		IL 207733 A	31-12-2014
		US 2011049824 A1	03-03-2011
		US 2014001719 A1	02-01-2014

WO 2017191628	A1	09-11-2017	
		AU 2017101718 A4	18-01-2018
		AU 2017260871 A1	21-12-2017
		AU 2018271253 A1	13-12-2018
		CA 2987892 A1	09-11-2017
		CN 107708935 A	16-02-2018
		DE 212017000011 U1	14-02-2018
		EP 3288719 A1	07-03-2018
		US 2018161975 A1	14-06-2018
		US 2018186513 A1	05-07-2018
		US 2019106244 A1	11-04-2019
		WO 2017191628 A1	09-11-2017

US 5951037	A	14-09-1999	
		DE 29714226 U1	09-10-1997
		US 5951037 A	14-09-1999

US 5797617	A	25-08-1998	NONE

US 2013223971	A1	29-08-2013	
		US 2013223971 A1	29-08-2013
		US 2015086323 A1	26-03-2015

US 2012160886	A1	28-06-2012	NONE

US 2007090616	A1	26-04-2007	NONE

US 2003184034	A1	02-10-2003	
		DE 10033698 A1	16-05-2002
		EP 1301101 A1	16-04-2003
		US 2003184034 A1	02-10-2003
		WO 0203829 A1	17-01-2002

Form PCT/ISA/210 (patent family annex) (April 2005)

TITLE: HAND TRUCK

APPLICANT: KETER PLASTIC LTD.

IPC CLASSIFICATION: B62B1/14, B62B3/04

EXAMINER: Jung, Wolfgang

CONSULTED DATABASES: WPI, EPODOC

CLASSIFICATION SYMBOLS DEFINING EXTENT OF THE SEARCH:

IPC:

CPC: B62B1/14, B62B3/04

FI/F-TERMS:

KEYWORDS OR OTHER ELEMENTS FEATURING THE INVENTION:

A hand truck comprising a frame having a first end, and a second end configured with a wheel set, and a ledge extending at said second end, wherein one or both of the frame and the ledge is configured with an articulation arrangement for detachably attaching thereto a utility unit, the articulation arrangement extending parallel to a plane of the respective frame or ledge.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IL2019/050689

International filing date (day/month/year)
20.06.2019

Priority date (day/month/year)
24.06.2018

International Patent Classification (IPC) or both national classification and IPC
INV. B62B1/14 B62B3/04

Applicant
KETER PLASTIC LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0
Fax: +49 89 2399 - 4465

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Jung, Wolfgang

Telephone No. +49 89 2399-0



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2019/050689

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. ☐ forming part of the international application as filed:
 - ☐ in the form of an Annex C/ST.25 text file.
 - ☐ on paper or in the form of an image file.
 - b. ☐ furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
 - ☐ in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2019/050689

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	<u>1-17</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-17</u>
Industrial applicability (IA)	Yes: Claims	<u>1-17</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1 **Re Item V**

Reasoned statement with regard to novelty and inventive step; citations and explanations supporting such statement

1.1 **Prior art**

Reference is made to the following documents:

D1	EP 2 289 671 A2
D2	WO 2017/191628 A1
D3	US 5 951 037 A
D4	US 5 797 617 A
D5	US 2013/223971 A1
D6	US 2012/160886 A1
D7	US 2007/090616 A1
D8	US 2003/184034 A1

-

1.2 **Independent claim 1**

The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 1 is not new, since each of documents D1-D8 is regarded to disclose the subject-matter of claim 1 for the following reasons:

1.2.1 D1

D1 discloses (cf. paragraph [0006] - paragraph [0017]; figures 1-7, 11A and paragraph [0061] - paragraph [0064]; figures 13-16, 19, 20A, 20B):

A hand truck (cf. e.g. fig. 15) comprising a frame (17) having a first end, and a second end (e.g. the lower end) configured with a wheel set (12), and a ledge (46, 49, 50, 51a) extending at said second end, wherein the frame (17) is configured with an articulation arrangement (18a) for detachably attaching thereto a utility unit (20, 22, 24), the articulation arrangement extending parallel to a plane of the respective frame (at least in a state of the articulation arrangement as shown in figures 6 or 19).

Therefore document D1 discloses the subject-matter of claim 1.

1.2.2 D2

The term "ledge" may be interpreted as "a relatively narrow, projecting part, as a horizontal, shelf-like projection on a wall" or "a raised edge on a tray".

Taking said term in combination with a first type of hand truck disclosed in figures 6A-6D or 16B into account then the protruding base part (106) in figures 6A-6D or 16B can be interpreted as being "a ledge" of said hand truck.

Document D7 also discloses another type of hand truck disclosed in figures 7A, 7B, 8A and 16A. With respect to said second type of hand truck according to an alternative embodiment (not shown in the figures; cf. page 31, l. 27-29):

"The carrying unit can be fitted with a collapsible support plate configuring it into a pushcart (not shown)."

Hence the collapsible support plate can be interpreted as being a "ledge" for said second type of hand truck.

Taking this interpretation of the term "ledge" into account then document D2 discloses (cf. page 23, line 12 - page 26, line 28; figures 1A-1D, 2A-2C, 3A-3D-4A-4D-6A-6D, 6A-6D; page 26, line 29 - page 30, line 13; figures 7A, 7B, 8A, 8B, 9A-9D, 10A, 10B, 11A, 11B, 16A, 16B):

A hand truck

- a first type of hand truck is shown in figure 6A and 16B having the reference number (106),
- a second type of hand truck (206) is disclosed in fig. 8A or 16A together with an alternative embodiment (not shown in the figures)

comprising:

a frame having a first end, and a second end configured with a wheel set (116; 208), and a ledge (in fig. 6A-6D and 16B the box (106) is interpreted as being a ledge and in 7A, 7B, 8A and 16A the collapsible support plate is interpreted to be a ledge) extending at said second end,

wherein for the first type of hand truck a top surface of the ledge and for the second type of hand truck the frame is configured with an articulation arrangement (cf. fig. 8A, 9A-9D) for detachably attaching thereto a utility unit (108; 202), the articulation arrangement extending parallel to a plane of the respective frame or ledge (cf. fig. 8A, 9C and 9D).

Hence also document D2 is regarded to disclose a hand truck having all the features of present claim 1.

1.2.3 D3

D3 discloses (cf. column 2, line 13 - column 5, line 10; figures 1-11):

A hand truck comprising a frame (20) having a first end, and a second end configured with a wheel set (56), and a ledge (50) extending at said second end, wherein the frame (20) is configured with an articulation arrangement (35, 35) for detachably attaching thereto a utility unit (83), the articulation arrangement extending (at least the hoke shaped end portions (352)) parallel to a plane of the respective frame (20).

Hence also document D3 is regarded to disclose a hand truck having all the features of present claim 1.

1.2.4 D4

D4 discloses (cf. column 3, line 32 - column 6, line 46; figures 1-7):

A hand truck (14) comprising a frame having a first end, and a second end configured with a wheel set (26), and a ledge (60) extending at said second end, wherein the frame is configured with an articulation arrangement (cf. fig. 2, 8) for detachably attaching thereto a utility unit (16), the articulation arrangement (at least the hook shaped end portions (54) extending parallel to a plane of the respective frame.

Hence also document D4 is regarded to disclose a hand truck having all the features of present claim 1.

1.2.5 D5

D5 discloses (cf. paragraph [0037] - paragraph [0052]; figures 1-5,6,7,11,12,13A-13C):

A hand truck (first type: cf. fig. 1, 5; second type: fig. 11-13) comprising a frame having a first end, and a second end configured with a wheel set (315), and a ledge (310) extending at said second end, wherein the frame is configured with an articulation arrangement (320; 551) for detachably attaching thereto a utility unit (403), the articulation arrangement (320; and the hook shaped end portion (553)) extending parallel to a plane of the frame (cf. fig. 5 and fig. 13A-13C).

Hence also document D5 is regarded to disclose a hand truck having all the features of present claim 1.

1.2.6 D6

D6 discloses (cf. paragraph [0023] - paragraph [0029]; figures 1, 2, 4, 5):

A hand truck (6) comprising a frame (cf. fig. 4, 5) having a first end, and a second end configured with a wheel set (10, 11), and a ledge (13) extending at said second end, wherein the frame is configured with an articulation arrangement (5) for detachably attaching thereto a utility unit (1), the articulation arrangement (5) extending parallel to a plane of the frame (8, 9, 16).

Hence also document D6 is regarded to disclose a hand truck having all the features of present claim 1.

1.2.7 D7

D7 discloses (cf. paragraph [0027] - paragraph [0037]; figures 1-4,8):

A hand truck (10) comprising a frame having a first end, and a second end configured with a wheel set (18, 18), and a ledge (22) extending at said second end, wherein the frame is configured with an articulation arrangement (60) for detachably attaching thereto a utility unit, the articulation arrangement (60) extending parallel to a plane of the frame.

1.2.8 D8

D8 discloses (cf. paragraph [0040] - paragraph [0046]; figures 1-9):

A hand truck (10) comprising a frame (cf. fig. 8) having a first end, and a second end configured with a wheel set (11, 11), and a ledge (18) extending at said second end, wherein the frame is configured with an articulation arrangement (14a, 14b) for detachably attaching thereto a utility unit (20a, 20b), the articulation arrangement (14a, 14b) extending parallel to a plane of the frame.

1.3 Dependent claims 2-17

Dependent claims 2-17 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, for the following reasons:

Claims 2-17:

D2 discloses (cf. page 23, line 12 - page 26, line 28; figures 1A-1D, 2A-2C, 3A-3D-4A-4D-6A-6D6A-6D; page 26, line 29 - page 30, line 13; figures 7A,7B, 8A,8B,9A-9D,10A,10B,11A,11B,16A, 16B) the additional subject-matter of claims 2-17, i.e.:

- attaching a utility unit (220) to the articulation arrangement takes place along a sliding path (P) extending parallel to the plane of the respective frame (cf. fig. 7A, 8A, 9A-9D).
- the articulation arrangement (240, 248) is a male-female type coupling arrangement, and wherein the frame is configured with a female coupler (248) and is configured for detachably attaching thereto a utility unit (220) configured with the male coupler (240).
- a utility unit articulation face (cf. fig. 8A) of the hand truck comprises at least one male coupler (240) at a face of the utility unit (202), and a female coupler (248) at the articulation face, said female coupler (248) having a depressed locking location (cf. fig. 9C) configured with at least one locking rib (248) extending above a depressed plain and along a sliding path, and having an open edge facing in a first sense; said male coupler (240) having a projecting locking location disposed in register with said depressed locking location and configured with at least one locking tongue extending along an engaging sliding path at a second sense, opposite to said first sense, and configured for arresting engagement at a space between said locking rib (248) and depressed plain;
- at least one locking rib (cf. fig. 8A) extends substantially parallel to the sliding path (P);
- the at least one locking rib extends substantially perpendicular and intersect the sliding path (cf. fig. 8A);
- the female coupler (248) comprises a single locking rib (248) extending at rear end of the depressed locking location and substantially perpendicular to the sliding path;
- the female coupler comprises two locking ribs (cf. fig. 8A) extending at side edges of the depressed locking location and disposed substantially parallel to the sliding path (P);
- the female coupler (236) comprises two locking ribs each extending at a respective side edge of two neighboring depressed locking locations, said locking ribs disposed substantially parallel to the sliding path (cf. fig. 8A).
- the coupling arrangement is configured as a snap-type locking of a utility unit over the articulation face (cf. fig. 10B);
- the hand truck is an L-shaped cart (taking the collapsible support plate, disclosed in page 31, l. 27-29 into account);

- the ledge is pivotable between a first position at which it extends substantially normal to the frame and is configured for bearing loads, and a collapsed position at which it extends substantially against the frame at a stowed position (collapsible support plate; cf. page 31, l. 27-29).
- the articulation arrangement is disposed on either of a front face and a rear face of the frame coupling arrangement is a set of couplers or a unitary coupling system (cf. fig. 9A).
- the articulation arrangement is disposed on a top face of the ledge (cf. (106) in fig. 6A);
- the female coupler is configured at the top face of the articulation face (cf. fig. (8A)).
- the articulation arrangement further comprises a locking mechanism (230) (cf. fig. 10B) for preventing unintentional separation of the utility unit (202) from the articulation face, while they are interlocked.
- the locking mechanism (230) comprises at the top face of the articulation face a locking latch arresting location (cf. fig. 10B), and the bottom face of the utility unit (202) can comprise a locking member (231, 237, 235) displaceable and disposed in register with said locking latch arresting location, wherein at a locked position the locking member is arrested by the corresponding locking latch arresting location, and further wherein disengaging the utility unit from the hand truck is facilitated by disengaging the locking latch from the locking latch arresting location.

Moreover, document D1 (cf. paragraph [0006] - paragraph [0017]; figures 1-7, 11A; paragraph [0061] - paragraph [0064]; figures 13-16, 19, 20A, 20B) is regarded to disclose the additional subject-matter of claims 3-11, 13, 15, 16 and 17. The ledge known from the hand truck according to D1 is not disclosed as being collapsible. However, to save space during inactivity of the hand truck the provision of a collapsible ledge as defined in claim 12 would be a straightforward possibility, which the skilled person would use, depending on the circumstances, without the exercise of inventive skill.

Document D3 (cf. column 2, line 13 - column 5, line 10; figures 1-11) is regarded to disclose the additional subject-matter of claims 2-3, 6, 10-17. In D3 no depression is formed at the utility unit, but a protruding portion (80). From document D4 it is known to provide the utility box either with a protruding coupling arrangement (cf. fig. 2) as in D4 or alternatively with a depression (cf. fig. 8). Depending on the circumstances the skilled person would consider using

a depression in the hand truck known from document D3 without the exercise of inventive skill. Therefore the additional subject-matter of claims 4, 7 and 9 is not regarded to involve an inventive step over document D3 in view of the well known alternative solution shown in fig. 8 of D4.

Document D4 (cf. column 3, line 32 - column 6, line 46; figures 1-7) is regarded to disclose the additional subject-matter of claims 3, 4, 6-13 and 15-17.

Document D5 (paragraph [0037] - paragraph [0052]; figures 1-5, 6, 7, 11, 12, 13A-13C) is regarded to disclose the additional subject-matter of claims 3, 10-13 and 15-17.

Document D6 (cf. paragraph [0023] - paragraph [0029]; figures 1,2,4,5) is regarded to disclose the additional subject-matter of claims 2, 3, 11-13 and 15.

Also document D7 (cf. paragraph [0027] - paragraph [0037]; figures 1-4,8) is regarded to disclose the additional subject-matter of claims 2, 3, 11-13 and 15.

Document D8 (cf. paragraph [0040] - paragraph [0046]; figures 1-9) is regarded to disclose the additional subject-matter of claims 2, 3, 11, 13 and 16.

2 Re Item VII

Certain defects in the international application

- 2.1 The features of claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

3 Re Item VIII

Certain observations on the international application

- 3.1 As explained below, some of the features in the apparatus claim 2 relate to a method of using the apparatus rather than clearly defining the apparatus in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.
- 3.2 In claim 4 a utility unit articulation face of the hand truck is defined via at least one male coupler at the hand truck or the utility unit, and a female coupler at the other one of the hand truck or the utility unit.

However, either of the male or the female coupler is coupled to the utility unit which is not part of the claimed hand truck. Nevertheless claim 4 defines the hand truck via specific features of both the male coupler and the female coupler, which results in a lack of clarity in the sense of Article 6 PCT, since at least one of the male or the female coupler is not part of the claimed subject-matter.

- 3.3 Claim 5 further defines the hand truck via a positioning of the at least one locking rib (44) of the female coupler (40). However, in the event that the female coupler is not part of the claimed hand truck then defining the hand truck via features not being part of the hand truck also results in a lack of clarity in the sense of Article 6 PCT. The same objection applies to claims 6-9, each thereof further defining the hand truck by features of the female coupler which according to present claim 4 is not necessarily a part of the claimed hand truck.
- 3.4 Claim 13 is dependent on present claim 1 and further defines the hand truck in that the articulation arrangement is disposed on either or both of "a front face and a rear face of the frame coupling arrangement is a set of couplers or a unitary coupling system." No frame coupling arrangement is defined in claim 1. Therefore the meaning of claim 13 is not clear - contrary to the requirements of Article 6 PCT. Moreover the phrase seems to be grammatically incorrect.
- 3.5 Claim 15 is dependent on present claim 1 and further defines the hand truck by features of a female coupler, which is not part of claim 1. Therefore the subject-matter of claim 15 is not clear - contrary to the requirements of Article 6 PCT.
- 3.6 Claim 16 is dependent on present claim 1 and further defines the hand truck in that the articulation arrangement further comprises "a locking mechanism for preventing unintentional separation of the utility unit from the articulation face, while they are interlocked". Since the articulation face is not defined in claim 1 the subject-matter of claim 16 is not clear - contrary to the requirements of Article 6 PCT.
- 3.7 Claim 17 is dependent on present claim 1 and further defines the hand truck in that the locking mechanism comprises at one of a top face of the articulation face and a bottom face of the utility unit a locking latch arresting location. The remaining features of said claim are entirely optional by "can comprise" (... and the other one of said top face of the articulation face and a bottom face of the utility unit **can comprise** a locking member displaceable and disposed in register with said locking latch arresting location, wherein at a locked position the locking member is arrested by the corresponding locking latch arresting location, and further wherein disengaging the utility unit from the hand truck is

facilitated by disengaging the locking latch from the locking latch arresting location). In the event that the locking latch arresting location is located at the utility unit, which is not part of the claimed hand truck, then claim 17 would define the subject-matter by means of features, which are not part of the claimed subject-matter, which would again result in a lack of clarity in the sense of Article 6 PCT.

Possible steps after receipt of the international search report (ISR) and written opinion of the International Searching Authority (WO/ISA)

General information

For all international applications, the competent International Searching Authority (ISA) will establish an international search report (ISR) accompanied by a written opinion of the International Searching Authority (WO/ISA). The WO/ISA may be responded to by

- filing informal comments with the International Bureau of WIPO (IB) (where no demand for international preliminary examination (demand) is filed)
- filing amendments under Art. 19 PCT (this can be done whether or not a demand is filed)
- filing amendments under Art. 34 PCT and/or formal observations in response to objections raised in the WO/ISA (where a demand is actually filed)

This document explains these possibilities.

Filing informal comments

After receipt of the ISR and WO/ISA, the applicant may file informal comments on the WO/ISA, directly with the IB (see International Search and Preliminary Examination Guidelines 2.15). These will be communicated to the designated/elected Offices, together with the International Preliminary Report on Patentability (IPRP) at 30 months from the priority date.

Amending claims under Art. 19 PCT

The applicant may file amended claims under Art. 19 PCT, directly with the IB by the later of the following dates:

- 2 months from the date of mailing of the ISR and the WO/ISA
- 16 months from the priority date

However, any such amendment received by the IB after the expiration of the applicable time limit shall be **considered to have been received on time** by the IB, if it reaches it **before** the technical preparations for international publication have been completed (the 15th day prior to the date of publication, see PCT Applicant's Guide, International Phase, 9.013).

For further information, please see Rule 46 PCT as well as form PCT/ISA/220.

Please also note that, when filing amended claims under Art. 19 PCT, such amendments shall be **accompanied by a letter** identifying the amendments made and also the basis for the amendments in the application as originally filed (Rule 46.5(b) PCT). Where a **demand** is filed, failure to comply with this requirement may result in the amendments being ignored in the International Preliminary Examination Report (IPER), see Rule 70.2(c-bis) PCT.

**Filing a demand
for international
preliminary
examination**

In principle, the **WO/ISA** will be considered to be the written opinion of the International Preliminary Examining Authority (**IPEA**). Where the **WO/ISA** issued by the **EPO** as **ISA** gives a positive opinion on the international application and the invention to which it relates, filing a **demand** with the **EPO** as **IPEA** would normally be unnecessary, since a positive **IPRP** would anyway be established by the **IB** based on the **WO/ISA** (see also further below).

If the applicant wishes to file a **demand** (for example, to allow him to argue his case in international preliminary examination with regard to objections raised in a negative **WO/ISA** before the **IPEA** issues an **IPER**), this must be done before expiration of **3 months after the date of mailing of the ISR and WO/ISA** or **22 months after priority date**, whichever expires later (Rule 54*bis* PCT). Amendments under Art. 34 PCT can be filed with the **IPEA**, normally at the same time as filing the demand (Rule 66.1(b) PCT) or within the time limit set for reply to any written opinion issued during international preliminary examination by the **IPEA**.

If a **demand** is filed at the **EPO** as **IPEA** and no comments/amendments have been received by the time the **EPO** starts drawing up the **IPER** (Rule 66.4*bis* PCT), the **WO/ISA** will be transformed by the **IPEA** into an **IPER** (also called the **IPRP (Chapter II)** which would merely reflect the content of the **WO/ISA** (OJ 10/2011, 532). The **demand** can still be withdrawn (Art. 37 PCT).

Please also note that, when filing amendments under Art. 34 PCT, such amendments shall be accompanied by a letter which identifies the amendments made and also the basis for the amendments in the application as originally filed (Rule 66.8(a) PCT). Failure to comply with this requirement may result in the amendments being ignored in the **IPER (IPRP (Chapter II))**, see Rule 70.2(c-*bis*) PCT.

**Filing a request
for supplementary
international
search**

The applicant may, with the **IB**, file a request for **supplementary international search** under Rule 45*bis*.1 PCT. The present **ISR** and **WO/ISA** may also be taken into account in the execution of that supplementary international search, provided that these are available to the Authority charged with this task before it starts the supplementary search (Rule 45*bis*.5 PCT).

This kind of request **cannot be filed specifying the ISA** who did the international search.

More information on this topic can be found in the **PCT Applicant's Guide**, Chapter 8 (<http://www.wipo.int/pct/en/guide/ip08.html>).

**End of the
international
phase**

Where no **demand** is filed, at the end of the international phase, the **IB** will transform the **WO/ISA** into the **IPRP (PCT Chapter I)** (Rule 44*bis* PCT), which will then be transmitted together with possible informal comments to the designated Offices. Where a demand is filed, the **WO/ISA** is not transformed into an **IPRP (Chapter I)** by the **IB**, but rather the **IPEA** will establish an **IPER**, (the **IPER** is the same as the **IPRP (PCT Chapter II)**, see Rule 70.15 PCT).

IP-01-01-013

Electronic Acknowledgement Receipt	
EFS ID:	37938086
Application Number:	16216724
International Application Number:	
Confirmation Number:	1402
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:	066749-2270
Receipt Date:	05-DEC-2019
Filing Date:	11-DEC-2018
Time Stamp:	13:52:56
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	066749-2270_Transmittal.pdf	134911	no	2
			34814296bd6a9ac8a6aebb017f3c4b97ddc20540		
Warnings:					

Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	066749-2270_SB08.pdf	132056	no	2
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Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
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Information:					
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13	Other Reference-Patent/App/Search documents	A11_ISRWO_2.pdf	1155196	no	7
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14	Other Reference-Patent/App/Search documents	A12_ISRWO_3.PDF	2327657	no	21
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Warnings:					
Information:					

23	Non Patent Literature	A21_A_NPL.pdf	3156642	no	17
			491bced2e6c1ab6b2807e25bc6cd42b091a88dfd		
Warnings:					
Information:					
24	Non Patent Literature	A23_D_NPL.pdf	1431342	no	7
			c139d16fa306512f80401a45b72458d77289fee7		
Warnings:					
Information:					
Total Files Size (in bytes):				31977430	
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.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Milwaukee Electric Tool Corporation
Title: Utility Assembly and Coupling Mechanism
Appl. No.: 16/216,724
Filing Date: December 11, 2018
Examiner: WEINERTH, GIDEON R
Art Unit: 3736
Confirmation Number: 1402

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.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b)(4), before the mailing of a first Office action after the filing of a Request for Continued Examination under §1.114.

RELEVANCE OF EACH DOCUMENT

The relevance of the foreign-language document is shown in the figures of foreign-language documents and/or are described in the English-language abstract submitted herewith, where available. An English 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 December 4, 2019

By /Derek H. Campbell/

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

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



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

NOTICE OF ALLOWANCE AND FEE(S) DUE

142078 7590 01/08/2020
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

DATE MAILED: 01/08/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/216,724	12/11/2018	Yaron Brunner	066749-2270	1402

TITLE OF INVENTION: Utility Assembly and Coupling Mechanism

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	04/08/2020

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

142078 7590 01/08/2020
Reinhart (Milwaukee Tool)
ATTN: TRAVIS MCDONNELL, PARALEGAL
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/216,724	12/11/2018	Yaron Brunner	066749-2270	1402

TITLE OF INVENTION: Utility Assembly and Coupling Mechanism

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	04/08/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
WEINERTH, GIDEON R	3736	220-004270

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

- ☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



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.
16/216,724	12/11/2018	Yaron Brunner	066749-2270	1402
142078	7590	01/08/2020	EXAMINER	
Reinhart (Milwaukee Tool)			WEINERTH, GIDEON R	
ATTN: TRAVIS MCDONNELL, PARALEGAL			ART UNIT	
1000 NORTH WATER STREET			PAPER NUMBER	
SUITE 2100			3736	
MILWAUKEE, WI 53202			DATE MAILED: 01/08/2020	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. 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 30 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, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
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.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 16/216,724	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--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/5/2019.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ 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.

3. ☒ The allowed claim(s) is/are See Continuation Sheet. As a result of the allowed claim(s), 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**.

4. ☐ 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)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)	5. ☐ Examiner's Amendment/Comment
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>12/5/2019</u> .	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.	

/GIDEON R WEINERTH/ Examiner, Art Unit 3736	
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Continuation of 3. The allowed claim(s) is/are: 1-3,5-6,14-17,20-21 and 23

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: As discussed in the Previous Office Action of 6/13/2019, Claims 1 - 3, 6, 7, 9, 11, 12, 14, 15, 16, 17, 20-22 were allowed. The presently amended claims overcome all other 112 rejections and drawing objections.

2. Furthermore, the references cited in the IDS of December 5, 2019 have been considered in addition to the references cited in the related Applications 15/826201 and 15/826232.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

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 <http://pair-direct.uspto.gov>. 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. 16/216,724		Applicant(s)/Patent Under Reexamination Brunner et al.	
	Examiner GIDEON R WEINERTH		Art Unit 3736	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20190106244-A1	04-2019	Brunner; Yaron	A45F3/10	1/1
*	B	US-20170138382-A1	05-2017	KO; Kenneth H.	F16B12/24	1/1
*	C	US-10434638-B1	10-2019	Tsai; Chung-Yu	B25H3/023	1/1
	D					
	E					
	F					
	G					
	H					
	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

*		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.

U.S. Patent and Trademark Office
PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20191222

<i>Search Notes</i> 	Application/Control No. 16/216,724	Applicant(s)/Patent Under Reexamination Brunner et al.
	Examiner GIDEON R WEINERTH	Art Unit 3736

CPC - Searched*		
Symbol	Date	Examiner
A45C5/14	1/16/2019	GW
A45C7/0045,005	01/16/2019	GW
A45C13/02	01/16/2019	GW
A45F3/10	1/16/2019	GW
A47B47/00,04,	1/16/2019	GW
A47B67/04	1/16/2019	GW
A47B87/02,007,0276	1/16/2019	GW
A47B88/90	1/16/2019	GW
A47B2210/19	1/16/2019	GW
B25H1/04	1/16/2019	GW
B25H3/021,022,023,04,06,02,	1/16/2019	GW
B62B1/14	1/16/2019	GW
B62B5/067	1/16/2019	GW
B65D21/0217,0219,0222,0228,023,0224,02,0223,0212,0204,0209,	1/16/2019	GW
B65D2255/00	1/16/2019	GW
B65D25/2823,06	1/16/2019	GW
B65H2701/533	1/16/2019	GW
B60P7/13,06	1/16/2019	GW
E04F2201/013,0146,023,05,	1/16/2019	GW
Y10S292/38,53	1/16/2019	GW
Y10T403/7045	1/16/2019	GW
Update Search/IDS search	06/09/2019	GW
A45C5/14	06/09/2019	GW
A45C7/0045,005	06/09/2019	GW
F16B12/24,44	06/09/2019	GW

/GIDEON R WEINERTH/ Examiner, Art Unit 3736	/GIDEON R WEINERTH/ Examiner, Art Unit 3736
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Search Notes 	Application/Control No. 16/216,724	Applicant(s)/Patent Under Reexamination Brunner et al.
	Examiner GIDEON R WEINERTH	Art Unit 3736

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
206	508,511,504,503,501,	1/16/2019	GW
220	4.27	1/16/2019	GW
280	47.18,47.19,47.26,79.2,47.26,47.28,652,	1/16/2019	GW
312	107,111	1/16/2019	GW
410	84	1/16/2019	GW
248	224.7,225.21	1/16/2019	GW

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

Search Notes		
Search Notes	Date	Examiner
Update search. Include searches for applications 15826201, 15826232	09/03/2019	GW
Update search including IDS of 12/5/2019 and related applications	12/22/2019	GW

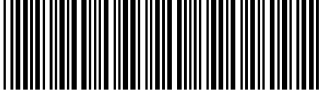
Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/GIDEON R WEINERTH/ Examiner, Art Unit 3736	/GIDEON R WEINERTH/ Examiner, Art Unit 3736
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Search Notes 	Application/Control No. 16/216,724	Applicant(s)/Patent Under Reexamination Brunner et al.
	Examiner GIDEON R WEINERTH	Art Unit 3736

206	508,511,504,503,501,	09/03/2019	GW
220	4.27	09/03/2019	GW
280	47.18,47.19,47.26,79.2,47.26,47.28,652,	09/03/2019	GW
312	107,111	09/03/2019	GW
410	84	09/03/2019	GW
248	224.7,225.21	09/03/2019	GW
A45C5	14	09/03/2019	GW
A45C7	0045,005	09/03/2019	GW
A45C13	02	09/03/2019	GW
A45F3	10	09/03/2019	GW
A47B47	00,04,	09/03/2019	GW
A47B67	04	09/03/2019	GW
A47B87	02,007,0276	09/03/2019	GW
A47B88	90	09/03/2019	GW
A47B2210	19	09/03/2019	GW
B25H1	04	09/03/2019	GW
B25H3	021,022,023,04,06,02,	09/03/2019	GW
B62B1	14	09/03/2019	GW
B62B5	067	09/03/2019	GW
B65D21	0217,0219,0222,0228,023,0224,02,0223,0212,0204,0209,	09/03/2019	GW
B65D2255	00	09/03/2019	GW
B65D25	2823,06	09/03/2019	GW
B65H2701	533	09/03/2019	GW
B60P7	13,06	09/03/2019	GW
E04F2201	013,0146,023,05,	09/03/2019	GW
F16B12	24,44	09/03/2019	GW
Y10S292	38,53	09/03/2019	GW
Y10T403	7045	09/03/2019	GW

/GIDEON R WEINERTH/ Examiner, Art Unit 3736	/GIDEON R WEINERTH/ Examiner, Art Unit 3736
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<i>Index of Claims</i> 	Application/Control No. 16/216,724	Applicant(s)/Patent Under Reexamination Brunner et al.
	Examiner GIDEON R WEINERTH	Art Unit 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	06/09/2019	09/04/2019							
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	21	=	=							
	22	=	-							
	23		=							

Issue Classification 	Application/Control No. 16/216,724	Applicant(s)/Patent Under Reexamination Brunner et al.
	Examiner GIDEON R WEINERTH	Art Unit 3736

CPC						
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A45C	/	5	/	14	I	2013-01-01
A45C	/	7	/	005	I	2013-01-01
A45F	/	3	/	10	I	2013-01-01
B25H	/	1	/	04	I	2013-01-01
A45C	/	13	/	02	I	2013-01-01
B25H	/	3	/	021	I	2013-01-01
B65D	/	21	/	0209	I	2013-01-01
B62B	/	1	/	14	I	2013-01-01
B65D	/	21	/	0228	I	2013-01-01
B65H	/	2701	/	533	A	2013-01-01
A45C	/	7	/	0045	A	2013-01-01
B25H	/	3	/	023	A	2013-01-01
B62B	/	5	/	067	A	2013-01-01
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CPC Combination Sets				
Symbol	Type	Set	Ranking	Version

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	12	
/GIDEON R WEINERTH/ Examiner, Art Unit 3736	22 December 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1A

U.S. Patent and Trademark Office

Part of Paper No.: 20191222

Issue Classification 	Application/Control No. 16/216,724	Applicant(s)/Patent Under Reexamination Brunner et al.
	Examiner GIDEON R WEINERTH	Art Unit 3736

INTERNATIONAL CLASSIFICATION			
CLAIMED			
B65D	/	21	/ 02
B65D	/	21	/ 028
A45C	/	13	/ 02
B25H	/	3	/ 02
NON-CLAIMED			
/		/	

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS
206	501

CROSS REFERENCES(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
206	504	508	511		
280	47.18				

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	12	
/GIDEON R WEINERTH/ Examiner, Art Unit 3736	22 December 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1A

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Issue Classification 	Application/Control No. 16/216,724	Applicant(s)/Patent Under Reexamination Brunner et al.
	Examiner GIDEON R WEINERTH	Art Unit 3736

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CLAIMS																
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	7	9	16													
	8	10	17													
	9		18													

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 12	
/GIDEON R WEINERTH/ Examiner, Art Unit 3736 (Primary Examiner) _____ (Date) 22 December 2019		O.G. Print Claim(s) 1	O.G. Print Figure 1A

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /G.R.W/

PTO/SB/08 (09-06)

Approved for use through 03/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: December 5, 2019 <i>(use as many sheets as necessary)</i>				Application Number	16/216,724
				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	1	of	5	Attorney Docket Number	066749-2270

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 Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/G.R.W/	A1	2,042,387	05-26-1936	COBB DAVID F	
	A2	2,970,358	02-07-1961	E. C. Elsner	
	A3	3,506,321	04-14-1970	Hampel	
	A4	3,974,898	08-17-978	Tullis et al.	
	A5	4,168,076	09-18-1979	Johnson	
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	A7	5,105,947	04-21-1992	Wise, Thomas W.	
	A8	5,301,829	04-12-1994	Chrisco	
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	A10	5,951,037	09-14-1999	Hsieh Hung-Ching	
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	A12	6,109,627	08-29-2000	Sung Hoan Be	
	A13	6,176,559	01-23-2001	Tiramani et al.	
	A14	6,347,847	02-19-2002	Tiramani et al.	
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	A19	6,619,772	09-16-2003	Dierbeck	
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	A22	6,983,946	01-10-2006	Sullivan et al.	
	A23	7,044,484	05-16-2006	Wang	
	A24	7,066,475	06-27-2006	Bret E. Barnes	
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	A26	7,263,742	09-04-2007	Guido Valentini	
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	A28	7,658,887	02-09-2010	Hovatter	
	A29	7,780,026	08-24-2010	Zuckerman	
	A30	8,028,845	10-04-2011	Himes	
	A31	8,191,910	06-05-2012	Landau et al.	
	A32	8,454,033	06-04-2013	Tsai	
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	A34	8,714,355	05-06-2014	Huang	
	A35	8,985,922	03-24-2015	Neumann	
	A36	9,643,629	05-09-2017	The Stanley Works Israel Ltd.	
	A37	2002/0171228	11-21-2002	Kady	
	A38	2003/0115715	06-26-2003	Guido Valentini	
/G.R.W/	A39	2003/0146589	08-07-2003	Jarko et al.	
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				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	2	of	5	Attorney Docket Number	066749-2270

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
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	A41	2003/0205877	11-06-2003	Verna et al.	
	A42	2004/0103494	06-03-2004	Valentini	
	A43	2004/0206656	10-21-2004	Dubois et al.	
	A44	2005/0062244	03-24-2005	Guirlinger	
	A45	2005/0104308	05-19-2005	Barnes	
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	A49	2007/0145700	06-28-2007	Ambrose et al.	
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	A59	2012/0180250	07-19-2012	KAERCHER GMBH AND CO ALFRED KG	
	A60	2013/0024468	01-24-2013	Kocsis, Susan C.	
	A61	2013/0031731	02-07-2013	KAERCHER GMBH AND CO ALFRED KG	
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	A63	2013/0223971	08-29-2013	Grace IV, Robert W.	
	A64	2014/0161518	06-12-2014	KO	
	A65	2017/0165828	06-15-2017	Festool GmbH	
	A66	2017/0257958	09-07-2017	Sabbag et al.	
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	A68	2018/0220758	08-09-2018	Rothenberger AG	
	A69	2019/0039781	02-07-2019	Kogel	
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/G.R.W/	A77	D753,395	04-12-2016	Brunner	

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	12/22/2019
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Sheet	3	of	5	Attorney Docket Number	066749-2270

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/G.R.W/	A78	D765,974	09-13-2016	Tonelli et al.	
	A79	D770,179	11-01-2016	Menirom	
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	A82	D833,744	11-20-2018	Yahav et al.	
/G.R.W/	A83	D837,515	04-08-2019	Shpitzer	

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS					
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FOREIGN PATENT DOCUMENTS						
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/G.R.W/	A84	CN101068661	11-07-2007	BOSCH GMBH ROBERT		
	A85	CN102248523	11-23-2011	CHANGHONG HAN et al.		
	A86	CN102469899	05-23-2012	KAERCHER GMBH AND CO KG ALFRED		
	A87	CN102834035	12-19-2012	KAERCHER GMBH AND CO ALFRED KG		
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	A89	CN 200947356	09-12-2007	FU GANG		
	A90	DE102004057870	06-01-2006	BOSCH GMBH ROBERT		
	A91	DE102010003754	10-13-2011	KAERCHER GMBH AND CO ALFRED KG		
	A92	DE102010003756	10-13-2011	KAERCHER GMBH AND CO ALFRED KG		
	A93	DE102012106482	01-23-2014	WAGEL JOACHIM		
	A94	DE102012220837	05-15-2014	BOSCH GMBH ROBERT		
	A95	DE102015013053	04-13-2017	BURCHIA ROLF		
	A96	DE102015112204	02-16-2017	PERL MICHAEL		

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	12/22/2019
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				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
				Attorney Docket Number	066749-2270

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G.R.W/	A97	DE202011002617	04-28-2011	Bekuplast Kunststoffverarbeitungs-GmbH		
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	A99	DE20218996	03-06-2003	TTS TOOLTECHNIC SYSTEMS AG		
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	A118	GB2413265	10-26-2005	THOMSON BRIAN		
	A119	GB694707	07-22-1953	GEORGE ARTHUR CHARD		
/G.R.W/	A120	JP2003194020A	07-09-2003	SUGIMURA ATSUKI		

NON PATENT LITERATURE DOCUMENTS			
Exami ner 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 12/22/2019

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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 Date Submitted: December 5, 2019 (use as many sheets as necessary)				Application Number	16/216,724
				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	5	of	5	Attorney Docket Number	066749-2270

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Exami ner 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	12/22/2019
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: December 5, 2019 <i>(use as many sheets as necessary)</i>				Application Number	16/216,724
				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	1	of	2	Attorney Docket Number	066749-2270

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

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

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number*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/	A1	WO07121745	11-01-2007	MADSEN JENS OLE		
	A2	WO07121746	11-01-2007	MADSEN JENS OLE		
	A3	WO09140965	11-26-2009	MADSEN JENS OLE		
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	A6	WO14125488	08-21-2014	BRUNNER YARON		
	A7	WO17212840	12-14-2017	FURUTA YOSHIHISA		
	A8	WO2007121745A1	11-01-2007	MADSEN JENS OLE		
/G.R.W/	A9	WO2017191628	11-09-2017	BRUNNER YARON		

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/G.R.W/	A11	International Search Report and Written Opinion for International Application No. PCT/US2019/014940, dated July 26, 2019, 7 pages.		

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	12/22/2019
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				Art Unit	3736
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Sheet	2	of	2	Attorney Docket Number	066749-2270

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/G.R.W./	A15	"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.	
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/G.R.W./	A18	STUART, "Ryobi ToolBlox Tool Cabinet System!", TOOLGUYD, September 18, 2014, https://toolguyd.com/ryobi-toolblox-cabinets/ , 23 pages.	
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/G.R.W./	A20	"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.	
/G.R.W./	A21	Sortimo Logistix, "Mobile Sortimente", brochure, believed to be available at least as early as November 29, 2017, 17 pages.	
/G.R.W./	A22	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.	
/G.R.W./	A23	Batavia GmbH, BluCave Storage System, https://protect-us.mimecast.com/s/5XIGCR6KypcgJnIKi9FDoim?domain=batavia.eu , believed to be available at least as early as November 29, 2017, 7 pages.	
/G.R.W./	A24	VERTAK, https://www.alibaba.com/product-detail/Vertak-global-patented-multi-function-portable_60217794260.html , believed to be available at least as early as November 29, 2017.	

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	12/22/2019
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Bibliographic Data

Application No: 16/216,724

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

G.R.W

Initials

Title:

Utility Assembly and Coupling Mechanism

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/11/2018	220	3736	066749-2270
RULE			

APPLICANTS

Milwaukee Electric Tool Corporation, Brookfield, WI,

INVENTORS

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Grant T. Squiers Cudahy, WI, UNITED STATES

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CONTINUING DATA

This application is a CON of 15826232 11/29/2017

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

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UNITED STATES

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	((("5240264") or ("7503569") or ("20020000440") or ("20040195793") or ("20110139665") or ("20110155613") or ("20130127129")).PN.	USPAT; USOCR	OR	OFF	2018/04/05 19:40
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		("4995176").URPN.	PGPUB; USPAT; USOCR			21:24
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S46	7	("1849659").URPN.	USPAT	OR	OFF	2018/04/05 21:29
S47	46	("1849659" "2774511" "2916293" "2994457" "3053397" "3100582" "3113680" "3219232" "3282458" "3647112" "4000817" "4176747" "Re26758" "Re27649").PN. OR ("4550837").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:30
S48	1066	B65D21/0217,0219,0222,0228,023.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:33
S49	92	B65D21/0217,0219,0222,0228,023.cpc. and spring	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:33
S50	0	("2017/0121056").URPN.	USPAT	OR	OFF	2018/04/05 21:37
S51	4	("20110139777" "5301829" "5427265" "8602217").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:37
S52	16	("20080000899" "20120312812" "20130127129" "3379482" "3811559" "4118048" "4619363" "5125697" "5904269" "6082539" "6371320" "6874634" "6889838" "7387350" "7516842").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:39
S53	2	("2012/0024739").URPN.	USPAT	OR	OFF	2018/04/05 21:43
S54	4	("2011/0168599").URPN.	USPAT	OR	OFF	2018/04/05 21:44
S55	22	("5699925" "6959507" "20090139892" "3182856" "20030155267" "20080308641" "3182856" "5353948" "3581928" "4351448" "20090178989" "2634020" "3387732" "5755180" "6761266" "20050224494" "7246718" "5606820" "20090236255" "5469961").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:45
S56	237	206/501.ccls.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:46
S57	2	("2010/0219193").URPN.	USPAT	OR	OFF	2018/04/05 21:50
S58	72	("0879455" "20040134390" "20040178208" "20060254946" "20060254947" "20080017650" "20100219193" "2695115" "2849151" "3103278" "3117692" "3383009" "3391824" "3407758" "3419184"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:50

		"3481502" "3616943" "3754645" "3756396" "3759416" "3811747" "3916803" "3926321" "3968879" "4287997" "4618059" "4655360" "4765252" "4832200" "4848605" "4889235" "5054617" "5203494" "5392945" "5404829" "5454477" "5641090" "5718350" "5769230" "5779051" "5974981" "6021916" "6085467" "6186345" "6237758" "6308858" "6371364" "6446563" "6457599" "6585090" "6622642" "6662950" "6698362" "7163122" "D236326" "D333094" "D361715" "D446017" "D500924").PN. OR ("8851287").URPN.				
S59	36	("20020096844" "4066155" "4813542" "5099968" "5564805" "5906291" "D439739").PN. OR ("6585090").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:52
S60	73	("20030029750" "20030123965" "20050072642" "20050077136" "20060119060" "20070012694" "20070068757" "2497173" "3061057" "3452846" "3532355" "3572253" "3650216" "3861703" "3891230" "4081061" "4118048" "4122925" "4350194" "4621716" "4657135" "4693345" "4738340" "4792025" "4813521" "4951818" "5038842" "5048649" "5109961" "5142445" "5178244" "5186290" "5197579" "5339934" "5373104" "5379870" "5407039" "5447216" "5484045" "5484046" "5632496" "5713439" "5890571" "5927361" "6073737" "6116390" "6164425" "6213266" "6401890" "6520327" "6585090" "6634496" "6758334" "6976566" "7077252" "7232018" "7380685" "7398868" "7726483" "7780002" "7942282" "D294775" "D453623").PN. OR ("8561769").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:53
S61	44	("20040007574" "20050036847" "20050199459" "20070130731" "20090178946" "20120292867" "3419184" "3987829" "4287997" "4452555" "5058746" "5085448" "5186330" "5564805" "5709008" "5785328" "6116390" "6983946" "7011214" "7044528" "7163122" "7350789" "7482928" "7530580" "7537119" "7714708" "7780026" "7854321" "7883096" "7938412" "8132819" "8146771" "8256242" "8561769" "8567796" "D358765" "D401412" "D467424" "D467425" "D467426" "RE44656").PN. OR ("9550605").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 21:59
S62	10	("20050199623" "5765707" "5829595" "6024223" "7337908").PN. OR ("8146771").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:03

S63	42	("0621601" "2761582" "3113690" "3616943" "3643993" "3823973" "3828964" "3977558" "4000704" "4042111" "4416374" "4678084" "4887731" "5011036" "5022546" "5105967").PN. OR ("5186330").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:05
S64	74	("0879455" "2849151" "3005282" "3371816" "3393858" "3481502").PN. OR ("3616943").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:08
S65	36	("1234730" "20020145022" "20030010799" "20040207225" "20090212584" "2578238" "2883764" "3002650" "3131829" "3351228" "3374914" "3616943" "4754883" "4838745" "4941784" "5025964" "5392945" "5469999" "5538153" "5671511" "5676251" "5687895" "5855310" "6471278" "7159730" "7329451" "7537119" "D264014" "D333094").PN. OR ("9738198").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:09
S66	75	("0879455" "20040178208" "20060254947" "2695115" "2849151" "2939603" "3103278" "3117692" "3383009" "3391824" "3419184" "3481502" "3616943" "3754645" "3756396" "3759416" "3811747" "3968879" "4287997" "4655360" "4671411" "4765252" "4832200" "4848605" "5042674" "5203494" "5392945" "5454477" "5566824" "5641090" "5718350" "5769230" "5779051" "6021916" "6085467" "6186345" "6237758" "6308858" "6367630" "6371364" "6457599" "6585090" "6662950" "7163122" "D333094" "D361715" "D446017" "D500924").PN. OR ("7537119").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:10
S67	45	("0491865" "1142932" "1665238" "20060016812" "20070108080" "20080264820" "20100084119" "3144016" "3259263" "3369691" "3384259" "3828964" "4109789" "4655360" "4760921" "4901380" "5086926" "5203494" "5461755" "5564583" "5671856" "5699925" "5769230" "6024223" "6085467" "6186345" "6237758" "6273258" "6457599" "6715627" "6840378" "6851566" "7510096" "7537119" "8056722" "RE37518").PN. OR ("8813960").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:11
S68	32	("4506798" "4626155" "4741449" "5109985" "5123541" "5190179" "5722328" "5862917").PN. OR ("6024223").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:12
S69	4	("1665238").URPN.	USPAT	OR	OFF	2018/04/05 22:15
S70	39	("2885135" "3376046" "3539071" "3568879" "3987829" "4174950" "4765252" "4844263" "D248015").PN. OR ("D333094").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:17

S71	53	("2761582" "3117692" "3360162" "3379341" "3392875" "3419184" "3675815" "3759416" "3979016" "4093071" "4106624" "4189052" "4379508").PN. OR ("4832200").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:19
S72	79	("3117692").URPN.	USPAT	OR	OFF	2018/04/05 22:22
S73	45	("1762635" "2531671" "2614399" "3117692" "3498494" "3501044" "3502241" "3667647" "3751852").PN. OR ("4279354").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:24
S74	13	("20060186186" "20070209962" "20080202976" "2328689" "2828059" "3811566" "4279354" "4293071" "6315126").PN. OR ("8684222").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:25
S75	45	("1762635" "2531671" "2614399" "3117692" "3498494" "3501044" "3502241" "3667647" "3751852").PN. OR ("4279354").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:26
S76	110	("2457842" "2483464" "2664219" "2702142" "3073466" "3130855" "3140007" "3586204" "3828964").PN. OR ("4287997").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:30
S77	63	("2461526" "3078484" "3114486" "3233803" "3749294" "3902640" "3915189" "4082208" "4287997" "4307826" "4366922" "4424841" "4491258" "4545414" "4673070" "4790432" "4813542" "4884731" "5131576" "5184763" "5321904" "5419473").PN. OR ("5628443").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:33
S78	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" "20120261223" "20150091264" "20160045000" "2454438" "2602675" "3131829" "3178197" "3317081" "3659867" "3842953" "3891230" "3974898" "4087102" "4314624" "4335895" "4575109" "4588055" "4673070" "4917392" "4953257"	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:34

		"4969660" "5072958" "5105962" "5127662" "5263727" "5310071" "5348325" "5533231" "5628443" "5630601" "5749503" "5803471" "5815843" "5873145" "5984154" "5984327" "6016893" "6042127" "6047442" "6141841" "6179176" "6182981" "6186295" "6196366" "6196560" "6213266" "6213267" "6237734" "6260871" "6279705" "6289554" "6305587" "6360400" "6367602" "6401888" "6401890" "6409412" "6454065" "6471019" "6474524").PN. OR ("6484362" "6530507" "6533086" "6575493" "6591950" "6604617" "6609271" "6736073" "6769701" "6832670" "6880685" "6923352" "6961976" "6964420" "7066311" "7070190" "7073694" "7093700" "7097181" "7097183" "7143912" "7226073" "7232018" "7237660" "7281616" "7284304" "7318507" "7328779" "7350648" "7374183" "7426985" "7441785" "7478803" "7594569" "7597341" "7780026" "8607947").PN. OR ("9888752").URPN.				
S79	6	("2008/0308369").URPN.	USPAT	OR	OFF	2018/04/05 22:35
S80	45	("0672173" "1084360" "20020144376" "20040084269" "20040173427" "20040238241" "20050077136" "20050092568" "20080308369" "20090095588" "20090101461" "20100059322" "20100170761" "20100236886" "20100270116" "20110168507" "20130037364" "20130175129" "20130213753" "20130220754" "2581417" "4836343" "5099968" "5355980" "5560458" "5671832" "5829559" "5927450" "5988334" "6347693" "6533086" "6536568" "7322477" "7322585" "7503569" "7909149" "8087513" "D516869" "D671316").PN. OR ("9027722").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:36
S81	35	("0922567" "1084360" "1567461" "2372845" "2428906" "2801666" "2858957" "3837447" "4098312" "4122925" "4142563" "4257463" "4286639" "4673070" "4744446").PN. OR ("4836343").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:39
S82	51	("0778785" "1567461" "2372845" "2428906" "2989998" "3631572" "3696850" "4122925" "4128194" "4256245" "4424841").PN. OR ("4673070").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:40
S83	33	("0842498" "1689399" "3114486" "3698045" "4231135" "4673070" "4799298" "4934573" "5205448" "5259093" "5465425" "5604958" "5632071" "5724707" "5815843"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:41

		"6108816" "7080430" "7251867").PN. OR ("7526842").URPN.				
S84	23	("2428906" "2707035" "3225951" "3319744" "3696850" "3958731").PN. OR ("4122925").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:43
S85	33	("1973819" "2007696" "3373911").PN. OR ("4142563").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:46
S86	12	("2858957").URPN.	USPAT	OR	OFF	2018/04/05 22:48
S87	12	("20060071581" "20080060964" "2858957" "3346137" "3568879" "4258847" "4592601" "4685565" "4863222" "7311202").PN. OR ("9724820").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:49
S88	43	("2128854" "3743372").PN. OR ("4863222").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:49
S89	73	("2842420" "2998128" "3032381" "3294463" "3501044" "3552817").PN. OR ("3743372").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:51
S90	36	("2011962" "3514170" "3552817" "3743372" "3851936" "3999818" "4198777" "4238032" "4353470" "4589546" "4744612" "4782619" "4874210" "4907703" "5046789" "5137340" "5176435" "5191983" "5344024" "5399004" "5454634").PN. OR ("6050657").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:53
S91	17	("3131829" "3429632" "3552579" "3707023" "4062302" "4239306" "5246284").PN. OR ("5454634").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 22:55
S92	55	("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	2018/04/05 22:59
S93	45	("2593998" "2653072" "2730423" "3131829" "3219400" "3514170" "3552817" "3563624" "3743372" "3814489").PN. OR ("3999818").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 23:03
S94	14	("2593998").URPN.	USPAT	OR	OFF	2018/04/05 23:06
S95	52	("4081061" "4621716" "5316159" "6213266" "6213267" "7976024" "1084360" "3749273" "4570799" "4995436" "5779051" "D447944" "3103278" "3374917" "5000713" "6585090" "5098328" "D359315" "20030132184" "20050199459" "4813542" "0480709" "5062539" "5186290" "6276550" "D346627" "5310071" "20040222059" "3583590" "3836043" "4287997" "4656840" "5167336"	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 23:14

		"5392945" "6257381" "20040000458" "4573595" "7644828" "D483200" "7648407" "3811747" "20010027902" "5099968" "5485920" "5709304" "5735422" "3346137").PN.				
S96	22	("3131829" "3194426" "3338452" "4258847" "4328902" "4428479" "5016946" "5050755" "5310071" "5316159" "5503288" "5845790").PN. OR ("6276550").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 23:16
S97	41	("2454438" "2495132" "3131829" "3194426" "3297196" "3317081" "3343705" "3404805" "3851936" "4192422").PN. OR ("4328902").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 23:18
S98	43	("1092651" "2565969" "2891639" "3028207" "3032381" "3506321").PN. OR ("3974898").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 23:29
S99	11	("0907507" "1626482" "2343525" "3974898" "4065014").PN. OR ("4423687").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/05 23:30
S100	32	("3481502").URPN.	USPAT	OR	OFF	2018/04/05 23:38
S101	8	((("1112943" or ("2255513" or ("2849151") or ("3371816"))).PN.	USPAT; USOCR	OR	OFF	2018/04/05 23:41
S102	16	("2849151").URPN.	USPAT	OR	OFF	2018/04/05 23:41
S103	8	((("0993866" or ("1342909" or ("1514512") or ("1640368"))).PN.	USPAT; USOCR	OR	OFF	2018/04/05 23:42
S104	21	("1112943").URPN.	USPAT	OR	OFF	2018/04/05 23:43
S105	16	("2849151").URPN.	USPAT	OR	OFF	2018/04/06 12:32
S106	8	((("0993866" or ("1342909" or ("1514512") or ("1640368"))).PN.	USPAT; USOCR	OR	OFF	2018/04/06 12:33
S107	22	("879455").URPN.	USPAT	OR	OFF	2018/04/06 12:34
S108	16	("2849151").URPN.	USPAT	OR	OFF	2018/04/06 13:10
S109	8	((("0993866" or ("1342909" or ("1514512") or ("1640368"))).PN.	USPAT; USOCR	OR	OFF	2018/04/06 13:11
S110	37	("3899229" "4431237" "4519655" "4828341" "4889254" "5191983").PN. OR ("5469961").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 13:11
S111	25	("20030155267" "20050224494" "20080308641" "20090139892" "20090178989" "20090236255" "2634020" "3182856" "3387732" "3581928" "4351448" "5353948" "5469961" "5606820" "5699925" "5755180" "6761266" "6959507" "7246718").PN. OR ("8677661").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 13:12
S112	24	("1226708" "2833137" "2834121" "2843943" "3139744" "3220229" "3545235" "3824813" "4507942" "4551996" "4663948" "4680948"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 13:13

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S117	2198	B25H3/021,022,023,04,06.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 18:07
S118	436	A47B47/00.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 18:10
S119	1076	A47B87/02,007,0276.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 18:10
S120	550	A47B67/04.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 18:11
S121	770	Y10T403/7045.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 18:12
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S129	3	("3351366").URPN.	USPAT	OR	OFF	2018/04/06 18:39
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S136	14	B65D25/2823.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 18:54
S137	351	B65D25/06.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 18:54
S138	73	(Milwaukee adj Electric).as. and (stack box)	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 19:01
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S141	84	(Milwaukee and tool).as. and latch	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 19:03
S142	37	(Milwaukee and tool).as. and (stack stacked stacking)	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 19:04
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"5833039"	"5833095"	"5836497"
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"6109403"	"6129254"	"6167680"
"6167994"	"6176559"	"6179185"
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"6343815"	"6347847"	"6357567").PN. OR
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"6390348"	"6405864"	"6408996"
"6415924"	"6435389"	"6443274"
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"6527309"	"6530507"	"6533138"
"6550651"	"6561327"	"6561402"
"6571998"	"6578708"	"6595334"
"6614337"	"6622856"	"6637562"
"6666363"	"6675965"	"6675967"
"6688614"	"6692011"	"6695142"
"6698609"	"6722524"	"6736265"
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"6755448"	"6758534"	"6761366"
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"6938741"	"6948724"	"6955381"
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"7008031"	"7021637"	"7036641"
"7048133"	"7066311"	"7073694"
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"7117991"	"7121407"	"7144020"
"7147089"	"7158376"	"7168713"
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"7237673"	"7237688"	"7240909"
"7246704"	"7270223"	"7296808"
"7316309"	"7318542"	"7322470"
"7322583"	"7326428"	"7331454"
"7334680"	"7357250"	"7357268"
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"7387304"	"7387305"	"7387350"
"7389997"	"7401698"	"7401700"
"7416066"	"7418846"	"7438084"
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"7467695"	"7478711"	"7500547"
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"7516502"	"7540364"	"7552560"
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"7591627"	"7594569"	"7597341"
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S144	325	B65D21/0212.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 19:09
S145	27	("4212415" "4664283" "4823955" "4896926" "5246105").PN. OR ("5544751").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 19:11
S146	44	("1699130" "2072672" "2551814" "2633285" "2736487" "3010638" "3361322" "3623650" "3632037" "3713579" "3905478" "3905541"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 19:12

		"3921896" "4002261" "4023617" "4187977" "4230233" "4245773" "4251006" "4277015" "4291830" "4389013" "4482074" "4643314" "4685610" "4762270" "4763833" "4828894" "4884739" "4911356" "4948039" "4993623" "5038998" "5116290" "5190213").PN. OR ("5429260").URPN.				
S147	0	("1140005").URPN.	USPAT	OR	OFF	2018/04/06 19:30
S148	119	("1267650" "1999162" "3163268" "3379482" "3419184" "3425471" "3498689" "3642168" "3700137" "3979016" "3987829" "4161261" "4293073" "4303158" "4523692" "4664347" "4799503" "4804092" "4819795" "4915913" "4982863" "4984687" "5011013" "5024471" "5040834" "5042674" "5065885" "5065887" "5080250" "5103994" "5117979" "5123564" "5176281" "5186330" "5190152" "5193706" "5244265" "5319937" "D237135" "D237611" "D238148" "D239695" "D246872" "D248280" "D257934" "D258721" "D277797" "D286937" "D292711" "D302774" "D312573" "D316516" "D319016" "D321090" "D321091" "D322164" "D325323" "D325324" "D326775" "D326815" "D327646" "D328425" "D328818" "D328819" "D329331" "D329747" "D330161" "D330162" "D330329" "D331317" "D335960" "D336366" "D339471" "D342364").PN. OR ("5564805").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 20:05
S149	62	("0198092" "0564782" "1063046" "1268124" "1740470" "1987822" "2011197" "2094805" "2122969" "2504722" "2759507" "2786500" "2791251" "2799306" "3018355" "3615087" "3746210" "3851756" "4061323" "4239195" "4256294" "4278243" "4303158" "4378828" "4460085" "4909491" "4911296" "5011013" "5117979" "5193706" "D253212" "D263533" "D288867").PN. OR ("5595228").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 22:03
S150	15	("2587829" "2610761" "2740517" "4252239" "4733703" "5329929" "5595228").PN. OR ("6206063").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/06 22:04
S151	6	("4466659" "4967944" "5207470" "6193118" "6554169" "7000810").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 00:38
S152	96	("1032326" "1503894" "1926162" "2612200" "2629644" "2724595" "2735597" "2754079" "2979190" "3229946" "3640423" "3642168" "3664704" "3727971" "3759416"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 00:38

		"3791547" "3854621" "3940009" "3987829" "4190281" "4213539" "4215896" "4288011" "4403786" "4458570" "4488669" "4499998" "4522326" "4531774" "4580827" "4593816" "4623071" "4674665" "D259413" "D285673").PN. OR ("4967944").URPN.				
S153	25	("2967080" "2987358" "4844305" "4967944" "5419476" "5667115").PN. OR ("5988473").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 00:40
S154	10	("2987358").URPN.	USPAT	OR	OFF	2018/04/07 00:41
S155	4	("2009/0315285").URPN.	USPAT	OR	OFF	2018/04/07 00:46
S156	223	("5072918" "5390943" "5871219" "6739605" "0875476" "6086073" "4743040" "6109628" "1427388" "20040129658" "20050023786" "20050057011" "20060232033" "20060237091" "3472392" "3999775" "4699270" "4786122" "5072955" "5743607" "5876047" "6123346" "6545863" "7232136" "D396023" "6497423" "D153654" "2155769" "3313498" "3870177" "4391422" "4763799" "4923202" "4998023" "5509671" "5915646" "6073919" "6095156" "6170839" "6264216" "D188099" "D460235" "D461941" "D469235" "5921566" "D415867" "20030047895" "20030218308" "5183372" "5275349" "5465988" "5913528" "6276471" "6752281" "7114733" "7134673" "7144020" "4743040" "3379431" "4457527" "5316232" "5566961" "6572123" "D153654" "D415867" "6497423" "D485037" "20060066064" "3698735" "3908749" "4895068" "6138558" "6251113" "6267080" "6471010" "6497424" "7207449" "4901937" "5308012" "6270094" "D463646" "D474570" "D485410" "5921566" "D273242" "D474570" "1149639" "2413164" "2575661" "2819908" "20050001395" "20060006621" "20060157944" "4099735" "4688860" "5048857" "5224531" "5452908" "7017603" "7156475" "7204374" "7296808" "5887878" "1126544" "2705114" "20050280228" "20050284697" "5285981" "6116533" "D302064" "D361187" "D381168" "D424321" "D487604" "D504000" "D469235" "1200008" "1471446" "1562089" "2623642" "2845780" "20010045718" "20020084607" "20020096844" "20060076306" "3965969" "4138504" "4165088" "4373761" "4880248" "6539831" "7044569" "5154544" "20040065989" "20040227315" "3212645" "4179080" "4759560"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 00:50

		"5188308" "5362078" "5495951" "5687928" "5839739" "5971512" "6497423" "6669214" "D336183" "D471687" "6086073" "D302064" "D336183" "20020060438" "20040056439" "20060208440" "4518208" "4832355" "5221132" "5375860" "5873585" "6022088" "6101831" "6206385" "D140635" "4380293" "6109437" "3610431" "4743040" "5269545" "5848798" "6241181" "6315376" "D391032" "D395108" "D403826" "D468881" "D471688" "D485037" "20030122331" "4923202" "1487856" "20030107195" "3606445" "3873114" "5011240" "5634649" "5716116" "5941229" "6578938" "6783563" "6910710" "D469235" "4815394" "1660521" "3759538" "4564152" "4585130" "5016948" "5123666" "5595395" "6102497" "6109628" "6322061" "6615973" "D361188" "D153654" "1649065" "20020064478" "20030121874" "20050127627" "3722700" "4019793" "5282678" "6857644" "D147135").PN.				
S157	18	("1193809" "1268124" "1521310" "3696850" "4724976" "4756394" "4787488" "5209279" "5219423" "5314046" "5971119" "0622263" "0695149").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 00:56
S158	31	("0783059" "2878928" "3245528" "3319685" "3386607" "3605374" "3835992" "3992810" "4320846" "4627595" "4799590" "4890741" "5135823" "5370255").PN. OR ("5676274").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 16:50
S159	26	("1101357" "1149266" "1862868" "2702116" "3145871" "4154362" "4503955" "4705316" "4896926" "4998616").PN. OR ("5415255").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 16:53
S160	37	("3182856" "3565146" "4951812" "4998616" "5036980" "5040681" "5060851" "5117979").PN. OR ("5325966").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 16:55
S161	6	("3412888" "4204609" "5409126" "5499715" "5769229").PN. OR ("6467681").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/07 17:17
S162	173	(US-20130127129-\$ or US-20110155613-\$ or US-20110139665-\$ or US-20040195793-\$ or US-20020000440-\$ or US-20120292213-\$ or US-20070012694-\$ or US-20150336710-\$ or US-20020134700-\$ or US-20100270764-\$ or US-20100000893-\$ or US-20050062244-\$ or US-20040183266-\$ or US-20020014488-\$ or US-20020113386-\$ or US-20030196860-\$ or US-20170259956-\$ or US-20160144500-\$ or US-20160130034-\$ or US-20150274362-\$ or US-20110168599-\$ or US-20090178989-\$ or US-20100219193-\$ or US-20060254946-\$ or US-20070068757-\$ or US-20090178946-	US- PGPUB; USPAT; USOCR	OR	OFF	2018/04/09 01:25

		\$.did. or (US-20050199459-\$ or US-20080308369-\$ or US-20050077136-\$ or US-20080104921-\$ or US-20160153200-\$ or US-20080134613-\$ or US-20080134607-\$ or US-20070193178-\$ or US-20170266804-\$ or US-20140075650-\$ or US-20090145866-\$ or US-20170217464-\$ or US-20170174392-\$ or US-20170166352-\$ or US-20160023349-\$ or US-20140166516-\$ or US-20120326406-\$ or US-20110121695-\$ or US-20070194543-\$ or US-20070170671-\$ or US-20110049824-\$ or US-20130056378-\$ or US-20120312812-\$ or US-20120187013-\$ or US-20120080432-\$ or US-20120061930-\$ or US-20050280228-\$).did. or (US-20060027475-\$ or US-20050155889-\$ or US-20160168880-\$).did. or (US-7503569-\$ or US-9022234-\$ or US-8875888-\$ or US-8657307-\$ or US-8590704-\$ or US-3182856-\$ or US-8459495-\$ or US-7097036-\$ or US-6193062-\$ or US-9393684-\$ or US-6637592-\$ or US-D730088-\$ or US-5833065-\$ or US-5482162-\$ or US-5244265-\$ or US-4244509-\$ or US-9643629-\$ or US-7780026-\$ or US-9132543-\$ or US-8567796-\$ or US-8226092-\$ or US-8201837-\$ or US-8132819-\$ or US-7997594-\$ or US-3010775-\$ or US-9669930-\$).did. or (US-4813542-\$ or US-6585090-\$ or US-6085925-\$ or US-D776106-\$ or US-6839238-\$ or US-9609964-\$ or US-7152752-\$ or US-9506489-\$ or US-3944282-\$ or US-5241765-\$ or US-4389078-\$ or US-1849659-\$ or US-4405057-\$ or US-9802741-\$ or US-8851287-\$ or US-8763836-\$ or US-8561769-\$ or US-D808164-\$ or US-9550605-\$ or US-4887731-\$ or US-9738198-\$ or US-7537119-\$ or US-8813960-\$ or US-9669968-\$ or US-6024223-\$ or US-1665238-\$ or US-D333094-\$).did. or (US-3376046-\$ or US-4832200-\$ or US-D364558-\$ or US-3419184-\$ or US-3117692-\$ or US-8684222-\$ or US-2328689-\$ or US-4287997-\$ or US-5628443-\$ or US-9888752-\$ or US-9027722-\$ or US-4673070-\$ or US-7526842-\$ or US-5465839-\$ or US-9724820-\$ or US-4863222-\$ or US-3743372-\$ or US-6050657-\$ or US-5454634-\$ or US-3851936-\$ or US-5602721-\$ or US-3999818-\$ or US-5271515-\$ or US-4243279-\$ or US-6276550-\$ or US-4328902-\$ or US-7350648-\$).did. or (US-5407074-\$ or US-3481502-\$ or US-2849151-\$ or US-3616943-\$ or US-5469961-\$ or US-8677661-\$ or US-5951130-\$ or US-7451578-\$ or US-6122879-\$ or US-3526420-\$ or US-2740167-\$ or US-9803375-\$ or US-9663940-\$ or US-7841144-\$ or US-9616562-\$ or US-5544751-\$ or US-5429260-\$ or US-7946609-\$ or US-6578708-\$ or US-6176559-\$ or US-5927837-\$ or US-5564805-\$ or US-5595228-\$ or US-6206063-\$ or US-7000810-\$ or US-4967944-\$ or US-5988473-\$).did. or (US-6641013-\$ or US-2987358-\$ or US-4576423-\$ or US-4756394-\$ or US-4896926-\$ or US-5325966-\$ or US-5697500-\$ or US-6467681-\$).did. or (US-3117692-\$ or US-2593998-\$).did.			
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S163	3	((("20170166352") or ("20110139665") or ("5628443")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/09 01:26
S164	28	(US-20170166352-\$ or US-20110139665-\$ or US-20170266804-\$ or US-20170217464-\$ or US-20170174392-\$ or US-20160168880-\$ or US-20160144500-\$ or US-20160130034-\$ or US-20140166516-\$ or US-20120326406-\$ or US-20100219193-\$ or US-20090145866-\$ or US-20070194543-\$ or US-20070068757-\$ or US-20060254946-\$ or US-20060027475-\$).did. or (US-5628443-\$ or US-9132543-\$ or US-9506489-\$ or US-8813960-\$ or US-8677661-\$ or US-8459495-\$ or US-8132819-\$ or US-6641013-\$ or US-6085925-\$ or US-5988473-\$ or US-5595228-\$ or US-3117692-\$).did.	US-PGPUB; USPAT	OR	OFF	2018/04/09 01:36
S165	7	((("5240264") or ("7503569") or ("20020000440") or ("20040195793") or ("20110139665") or ("20110155613") or ("20130127129")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/09 01:37
S166	27	S164 not S165	US-PGPUB; USPAT; USOCR	OR	OFF	2018/04/09 01:37
S167	1	("2011/0139665").URPN.	USPAT	OR	OFF	2018/11/21 18:13
S168	56	("1932429" "20060016811" "20060070906" "20060237341" "20070080089" "20080110190" "20080112782" "20080121253" "20080128414" "20090178989" "20090184021" "20110139665" "2178091" "2259041" "5271515" "5429260" "5531517" "5544751" "5549241" "5860527" "6062388" "6581772" "6880705" "6991106" "7044483" "7063210" "7516854" "7661549" "8342329" "8640871" "8973811" "8997993" "9056694" "9101212" "D277532" "D277723" "D277819" "D347130" "D385306" "D406478" "D470641" "D529755" "D538571" "D543030" "D589723" "D590021" "D645902" "D654726" "D664034" "D689718" "D709716" "D773217" "D781625").PN. OR ("D815471").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 18:13
S169	5	((("20160144500") or ("0784114") or ("20110073516") or ("20150274362")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 18:16
S170	4	((("20160144500") or ("7841144") or ("20110073516") or ("20150274362")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 18:17
S171	554	("0124228" "0213740" "0714987" "0753791" "1124228" "1194636" "1371856" "1407679" "1454250" "1468288" "1477813" "1510924" "1540128" "1575821" "1602256"	US-PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 18:17

"1602267"	"1615096"	"1622103"
"1622104"	"1637634"	"1644710"
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"1723306"	"1734826"	"1743492"
"1764331"	"1778069"	"1787027"
"1790178"	"1809393"	"1823039"
"1859667"	"1898364"	"1902716"
"1906411"	"1925070"	"1929871"
"1940377"	"1953306"	"1986739"
"1988201"	"1995264"	"20010029720"
"20020007608"	"20020007609"	
"20020014047"	"20020020127"	
"20020031646"	"20020046528"	
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S175	514	B25H3/02.cpc.	USPAT	OR	OFF	2018/11/21 18:45
S176	1041	B25H3/02.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 18:45
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S179	369	A47B88/90.cpc.	USPAT	OR	OFF	2018/11/21 18:46
S180	81	A47B2210/19.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 18:47
S181	29	("2614016" "2676080" "3001564" "3079037" "3974898" "4040538" "4119204" "4239309" "4287997" "4293072" "4865404" "5190156").PN. OR ("5407074").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 18:50
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S183	48	("3506321").URPN.	USPAT	OR	OFF	2018/11/21 18:54
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S185	520	B65D21/0204.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 19:01
S186	868	A47B87/02.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 19:02
S187	2232	312/107,111.ccls.	US-	OR	OFF	2018/11/21

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S188	703	A47B88/90.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 19:15
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S190	34	("0455883" "0484121" "0918297" "20060175945" "20100052276" "20110279956" "20120086319" "20130134850" "2341434" "2431830" "2441728" "3058320" "3135570" "3326203" "3712697" "4590709" "5011240" "5026130" "5048902" "5145245" "5673984" "6068356" "6164738" "8201900" "D322875").PN. OR ("9872562").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 19:24
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S193	16	("20080000899" "20120312812" "20130127129" "3379482" "3811559" "4118048" "4619363" "5125697" "5904269" "6082539" "6371320" "6874634" "6889838" "7387350" "7516842").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 20:02
S194	75	("0440957" "1933637" "2511949" "2789828" "2981549" "3055723" "3349924" "3379482" "3891230" "3905662").PN. OR ("4118048").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 20:03
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S202	1975	280/ 47.26,47.28.ccls.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/21 20:10
S203	518	280/ 652.ccls.	US- PGPUB;	OR	OFF	2018/11/21 20:10

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S205	12	(US-0271616-\$ US-0320243-\$ US-1276744-\$ US-1477050-\$ US-15826201-\$ US-20080308369-\$ US-3616562-\$ US-3875888-\$).DID.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/22 03:39
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S209	269	("20020014507" "20020043534" "20020074332" "20020125160" "20030075468" "20040112777" "20050109650" "20060017293" "20060124505" "20060144732" "20060201834" "20070137960" "20070194543" "20070241113" "20080017537" "20080035508" "20080035510" "20080067206" "20080152944" "20080164842" "20080169739" "20080230416" "20090080809" "20090211932" "20090236810" "20090250365" "20100012538" "20100012655" "20100033325" "20100224527" "20100258465" "20110084075" "20110094910" "20110132046" "20110174648" "20110268374" "20120018330" "20120152944" "20120206907" "20120257379" "20120267374" "20120292213" "20120312708" "20120317933" "20120318792" "20120326406" "20120326669" "20130007979" "20130186795" "20140102928" "2125856" "2145143" "2799306" "2883184" "3177023" "3259411" "3394955" "3817419" "3851756" "3924844" "4105112" "4278187" "4353182" "4890414" "5042193" "5165148" "5295742" "5379887" "5386907"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/22 19:39

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S212	2	("2012/0292870").URPN.	USPAT	OR	OFF	2018/11/22 19:41
S213	52	("6264083" "6666362" "7204374" "20120247044" "4249684" "6264220" "6935641" "7048320" "7165702" "20040194333" "20040251227" "20070210021" "20100300996" "20120199708" "4944416" "7487981" "6615973" "6786374" "20070137532" "5628534" "7017254" "6932406" "20040051016" "20050006539" "20080296245" "7740329" "20060021985" "5913380" "6736265" "20020100396" "20120131872" "3610429" "6629654" "4535897" "6581920" "20110107704" "0332360" "5406894" "6474245" "20050269792" "5582269" "20070012636" "5687856" "5899544" "6247720" "6814362" "20040222176" "20110168651" "4630739" "4961295" "5730414").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/22 19:46
S214	39	("2320387" "3052484" "3179270" "3734526" "4281843" "4363496" "4790549" "5464104" "5465987" "5474312" "5595395" "5671933").PN. OR ("6131926").URPN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/22 23:52
S215	1	"12736715"	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 01:36
S216	1	("2011/0139665").URPN.	USPAT	OR	OFF	2018/11/23 01:36
S217	20	("2807387" "20060220503" "3219400" "3424334" "4293072" "4643494" "4782619" "4996628" "5184726" "5246105" "5427394" "5544751" "5699925" "5901998" "5924778" "6367631" "6983946").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 01:37
S218	36	("1253546" "1619761" "1857640"	US-	OR	OFF	2018/11/23

		"2004900" "3133771" "3409162" "3529878" "3606506" "3729242" "3758181").PN. OR ("5246105").URPN.	PGPUB; USPAT; USOCR			01:38
S219	13	("3379482").URPN.	USPAT	OR	OFF	2018/11/23 02:28
S220	0	("2012/0152800").URPN.	USPAT	OR	OFF	2018/11/23 02:30
S221	12	("20080060964" "3568879" "4592601" "4685565" "20060071581" "4258847" "4863222" "2858957" "7311202" "3346137").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 02:30
S222	1041	B25H3/02.cpc.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 02:39
S223	140	S222 and (snap)	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 02:39
S224	67	(US-20170166352-\$ or US-20110139665-\$ or US-20170266804-\$ or US-20170217464-\$ or US-20170174392-\$ or US-20160168880-\$ or US-20160144500-\$ or US-20160130034-\$ or US-20140166516-\$ or US-20120326406-\$ or US-20100219193-\$ or US-20090145866-\$ or US-20070194543-\$ or US-20070068757-\$ or US-20060254946-\$ or US-20060027475-\$ or US-20150274362-\$ or US-20110073516-\$ or US-20090193748-\$ or US-20080134607-\$ or US-20080104921-\$ or US-20180313094-\$ or US-20180213934-\$ or US-20150102717-\$ or US-20180161975-\$ or US-20140305829- \$).did. or (US-20120312812-\$ or US- 20180290288-\$ or US-20180162592-\$ or US- 20170239808-\$ or US-20170121056-\$ or US- 20130127129-\$ or US-20060038367-\$ or US- 20160114822-\$ or US-20080308369-\$ or US- 20080169739-\$ or US-20120292870-\$).did. or (US-5628443-\$ or US-9132543-\$ or US- 9506489-\$ or US-8813960-\$ or US-8677661- \$ or US-8459495-\$ or US-8132819-\$ or US- 6641013-\$ or US-6085925-\$ or US-5988473- \$ or US-5595228-\$ or US-3117692-\$ or US- 5429260-\$ or US-7841144-\$ or US-5407074- \$ or US-4293072-\$ or US-3506321-\$ or US- 3974898-\$ or US-6109707-\$ or US-4423687- \$ or US-9872562-\$ or US-6547347-\$ or US- 4619363-\$ or US-4118048-\$ or US-3891230- \$ or US-9566990-\$).did. or (US-5799958-\$ or US-9616562-\$ or US-5184726-\$).did. or (US- 2430200-\$).did.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 14:36
S225	3	("20080308369" "8875888" "9616562").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 14:37
S226	28	(US-20170266804-\$ or US-20170217464-\$ or US-20170174392-\$ or US-20170166352-\$ or US-20160168880-\$ or US-20160144500-\$ or US-20160130034-\$ or US-20140166516-\$ or US-20120326406-\$ or US-20100219193-\$ or US-20090145866-\$ or US-20070194543-\$ or	US- PGPUB; USPAT	OR	OFF	2018/11/23 14:37

		US-20070068757-\$ or US-20060254946-\$ or US-20060027475-\$ or US-20110139665-\$).did. or (US-9506489-\$ or US-9132543-\$ or US-8813960-\$ or US-8677661-\$ or US-8459495-\$ or US-8132819-\$ or US-6641013-\$ or US-6085925-\$ or US-5988473-\$ or US-5628443-\$ or US-5595228-\$ or US-3117692-\$).did.				
S227	37	S224 not (S225 S226)	US-PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 14:37
S228	1	"20170174392".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 14:54
S229	14	(US-20180290288-\$ or US-20180161975-\$ or US-20170239808-\$ or US-20170121056-\$ or US-20080169739-\$ or US-20080134607-\$ or US-20080104921-\$ or US-20060038367-\$).did. or (US-9872562-\$ or US-9566990-\$ or US-7841144-\$ or US-6547347-\$ or US-5429260-\$).did. or (US-2430200-\$).did.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/11/23 21:07
S230	6	((("20120228074") or ("20120152800") or ("20170318927") or ("20110220531") or ("20110073516") or ("7841144")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:31
S231	5	("20040163913" "20050199459" "20100147642" "20120228074" "20120312812").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:33
S232	14	("1299291" "1643397" "2706036" "3811562" "4020930" "4790417" "5671830" "0758019" "D135357").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:35
S233	325	A45C7/0045.cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:40
S234	0	("2018/0161975").URPN.	USPAT	OR	OFF	2019/02/20 19:42
S235	18	("20080308369" "20080134607" "9566990" "9872562" "20170121056" "20170239808" "5429260" "7841144" "20080169739" "6547347" "9616562" "20060038367" "20080104921" "20180161975" "2430200" "8875888" "20180290288").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:57
S236	16	("20080134607" "9566990" "9872562" "20170121056" "20170239808" "5429260" "7841144" "20080169739" "6547347" "20060038367" "20080104921" "20180161975" "2430200" "20170174392" "20180290288").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:58
S237	14	("20050139745" "20080277221" "20090145790" "20100147642" "20110073516" "20110181008" "20130121783" "20170318927" "20180044059" "20190002004" "5608603" "6637707" "8177463" "9701443").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:58

S238	33	S235 S236 S237	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 19:58
S239	932	A45C5/14.cpc.	USPAT	OR	OFF	2019/02/20 20:01
S240	28	B65D21/00.cpc.	USPAT	OR	OFF	2019/02/20 20:01
S241	8	(US-20080134607-\$ or US-20080104921-\$ or US-20060038367-\$ or US-20120228074-\$).did. or (US-9872562-\$ or US-7841144-\$ or US-6547347-\$).did. or (US-2430200-\$).did.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 22:58
S242	18	("20080308369" "20080134607" "9566990" "9872562" "20170121056" "20170239808" "5429260" "7841144" "20080169739" "6547347" "9616562" "20060038367" "20080104921" "20180161975" "2430200" "8875888" "20180290288").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 22:59
S243	1	S241 not S242	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 22:59
S244	8	(US-20080134607-\$ or US-20080104921-\$ or US-20060038367-\$ or US-20120228074-\$).did. or (US-9872562-\$ or US-7841144-\$ or US-6547347-\$).did. or (US-2430200-\$).did.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 23:00
S245	26	(US-20180290288-\$ or US-20180161975-\$ or US-20170239808-\$ or US-20170121056-\$ or US-20080169739-\$ or US-20170318927-\$ or US-20120152800-\$ or US-20110220531-\$ or US-20110073516-\$ or US-20070012694-\$ or US-20190039781-\$ or US-20190002004-\$ or US-20060006770-\$ or US-20170166352-\$).did. or (US-9566990-\$ or US-5429260-\$ or US-5890613-\$ or US-5099968-\$ or US-4693345-\$ or US-3319744-\$ or US-9108764-\$ or US-9701443-\$ or US-3974898-\$ or US-3506321-\$).did.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 23:00
S246	19	S245 not S242	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 23:00
S247	1	"20170166352".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 23:25
S248	1	"20180161975"	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/20 23:28
S278	0	"20011012717".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:51
S279	0	"2001012717".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:51

S280	0	"20011012717".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:52
S281	0	((("20011012717") or ("20080257905")).PN.	USPAT; USOCR	OR	OFF	2019/02/21 19:52
S282	1	((("20011012717") or ("20080257905")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:52
S283	2	((("20110012717") or ("20080257905")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:52
S284	1	"20110012717".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:53
S285	5359	"20110602".pd.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:54
S286	32	"20110602".pd. and chan.inv.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/02/21 19:54
S287	24	("20030115715" "20030205877" "20060186624" "20080115312" "20080271280" "20090071990" "20100139566" "20120180250" "20120207571" "20130024468" "20130031731" "20130031732" "20160023349" "20170165828" "20170257958" "20180220758" "2042387" "5105947" "7263742" "8689396" "9643629" "D663952" "D664354").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/04/27 04:31
S288	0	"201200207571".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/04/27 04:37
S289	1	"20120207571".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/04/27 04:37
S290	1	"20090071990".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/04/27 04:38
S291	0	"2011155613".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/04/27 04:46
S292	1	"20110155613".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/04/27 04:46
S293	24	("20030115715" "20030205877" "20060186624" "20080115312" "20080271280" "20090071990"	US-PGPUB; USPAT;	OR	OFF	2019/04/27 05:03

		"20100139566" "20120180250" "20120207571" "20130024468" "20130031731" "20130031732" "20160023349" "20170165828" "20170257958" "20180220758" "2042387" "5105947" "7263742" "8689396" "9643629" "D663952" "D664354").PN.	USOCR			
S294	1	"20140161518".pn.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/05/14 19:30
S295	10	(US-15826201-\$ US-20050139745-\$ US- 20080277221-\$ US-20090145790-\$ US- 20100147642-\$ US-20110181008-\$ US- 20130121783-\$ US-20180044059-\$ US- 5608603-\$ US-6637707-\$ US-8177463- \$).DID.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/05/18 17:19
S296	1	("20140161518").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/06/04 15:29
S297	13	("8714355" "D525789" "D630851" "D674605" "D701696" "D753394" "D753395" "D765974" "D770179" "D790221" "D814187" "D833744" "D837515").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/08/18 22:38
S298	46	(US-14125488-\$ US-1428764-\$ US- 2970358-\$ US-20140000-\$ US-2047181-\$ US-2346741-\$ US-2805799-\$ US- 29708343-\$ US-3141354-\$ US-3510307-\$ US-4168076-\$ US-5035445-\$ US- 5301829-\$ US-6109627-\$ US-6347847-\$ US-6367631-\$ US-6431580-\$ US- 6601930-\$ US-6945546-\$ US-6948691-\$ US-6983946-\$ US-7044484-\$ US- 7066475-\$ US-7147243-\$ US-7658887-\$ US-7780026-\$ US-8028845-\$ US- 8454033-\$ US-8985922-\$ US- 20020171228-\$ US-20030146589-\$ US- 20040103494-\$ US-20040206656-\$ US- 20050062244-\$ US-20050104308-\$ US- 20080121547-\$ US-20080169739-\$ US- 20090145913-\$ US-20100052276-\$ US- 20140161518-\$ US-20170138382-\$ US- 20190106244-\$).DID.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/08/18 22:41
S299	1	((("5984441") or ("20100224527"))).PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/08/18 22:45
S300	2	((("5984441") or ("20100224527"))).PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/08/18 22:45
S301	1	("20180373126").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/08/18 22:56
S302	0	("2018/0373126").URPN.	USPAT	OR	OFF	2019/08/18 22:56
S303	1	("20190225371").PN.	US-	OR	OFF	2019/12/22

			PGPUB; USPAT; USOCR			19:42
S304	15	("20030184034" "20060006770" "20060119060" "20070090616" "20070145700" "20120160886" "20130223971" "5797617" "5951037" "6050660" "6176559" "6371320" "6619772" "7367571" "8191910").PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/12/22 19:44
S305	138	(US-0006770-\$ US-0024468-\$ US-0031731-\$ US-0031732-\$ US-0039781-\$ US-0052276-\$ US-0062244-\$ US-0071990-\$ US-0090616-\$ US-0103494-\$ US-0104308-\$ US-0115715-\$ US-0119060-\$ US-0121547-\$ US-0139566-\$ US-0145700-\$ US-0145913-\$ US-0146589-\$ US-0160886-\$ US-0161518-\$ US-0165828-\$ US-0171228-\$ US-0178946-\$ US-0180250-\$ US-0184034-\$ US-0205877-\$ US-0206656-\$ US-0220531-\$ US-0220758-\$ US-0223971-\$ US-0257958-\$ US-0271280-\$ US-2042387-\$ US-2970358-\$ US-20020171228-\$ US-20030115715-\$ US-20030146589-\$ US-20030184034-\$ US-20030205877-\$ US-20040103494-\$ US-20040206656-\$ US-20050062244-\$ US-20050104308-\$ US-20060006770-\$ US-20060119060-\$ US-20070090616-\$ US-20070145700-\$ US-20080121547-\$ US-20080271280-\$ US-20090071990-\$ US-20090145913-\$ US-20090178946-\$ US-20100052276-\$ US-20100139566-\$ US-20110220531-\$ US-20120160886-\$ US-20120180250-\$ US-20130024468-\$ US-20130031731-\$ US-20130031732-\$ US-20130223971-\$ US-20140161518-\$ US-20170165828-\$ US-20170257958-\$ US-20180220758-\$ US-20190039781-\$ US-3506321-\$ US-3974898-\$ US-4168076-\$ US-5035445-\$ US-5105947-\$ US-5301829-\$ US-5797617-\$ US-5951037-\$ US-6050660-\$ US-6109627-\$ US-6176559-\$ US-6347847-\$ US-6367631-\$ US-6371320-\$ US-6431580-\$ US-6601930-\$ US-6619772-\$ US-6945546-\$ US-6948691-\$ US-6983946-\$ US-7044484-\$ US-7066475-\$ US-7147243-\$ US-7263742-\$ US-7367571-\$ US-7658887-\$ US-7780026-\$ US-8028845-\$ US-8191910-\$ US-8454033-\$ US-8689396-\$ US-8714355-\$ US-8985922-\$ US-9643629-\$ US-9750543-\$ US-D701696-\$ US-D814187-\$).DID.	US- PGPUB; USPAT; USOCR	OR	OFF	2019/12/22 20:01
S306	49	("3506321").URPN.	USPAT	OR	OFF	2019/12/22 20:02
S307	1	("2019/0039781").URPN.	USPAT	OR	OFF	2019/12/22 20:04
S308	1	("RE47022").PN.	USPAT	OR	OFF	2019/12/22 20:05
S309	185	("0344661" "0687619" "1424819" "1933894" "20010052681" "20020014488"	US- PGPUB;	OR	OFF	2019/12/22 20:06

"20020067027"	"20020074905"	USPAT;
"20020113386"	"20020185831"	USOCR
"20030001348"	"20030146589"	
"20040069668"	"20040265104"	
"20050062244"	"20050104308"	
"20050161357"	"20050224384"	
"20050258610"	"20050275178"	
"20060006619"	"20060012139"	
"20060037964"	"20060038367"	
"20070080512"	"20070103039"	
"20070194024"	"20070194543"	
"20070273114"	"20080084036"	
"20080121547"	"20080128305"	
"20080143069"	"20090020528"	
"20090026901"	"20090096181"	
"20090223853"	"20090236255"	
"20090309323"	"20100052276"	
"20100290877"	"20100327562"	
"20110049824"	"20110181008"	
"20120160886"	"20120326406"	
"20140001719"	"20140023221"	
"20140375181"	"2554091"	"2588830"
"2901262"	"2964328"	"3168329"
"3310905"	"3327841"	"3393951"
"3734526"	"3804432"	"3891230"
"3990653"	"4169607"	"4202459"
"4363496"	"4448434"	"4619363"
"4836374"	"4884689"	"4927021"
"4936594"	"4984704"	"5022546"
"5104135"	"5123666"	"5207723"
"5325966"	"5333885"	"5362078"
"5378005"	"5464104"	"5474312"
"5595395"	"5626352"	"5634649"
"5699925"	"5720535"	"5799958"
"5803254"	"5845915"	"5882097"
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"5915554"	"5931483"	"5934466"
"5938396"	"6000713"	"6015064"
"6050660"	"6079719"	"6082539"
"6105767"	"6109627"	"6113129"
"6123344"	"6131926"	"6135466"
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"6357063"	"6371320"	"6394471"
"6398235"	"6474930"	"6523687"
"6561528"	"6601930"	"6616152"
"6626295"	"6648166"	"6648390"
"6659476"	"6666465"	"6874634"
"6889838"	"6945546"	"6971517"
"6994214"	"7063339"	"7066475"
"7108131"	"7168715"	"7188846"
"7188847"	"7210689"	"7219969"
"7246704"	"7255229"	"7263742"
"7328905"	"7334680"	"7357268"
"7367571"	"7472730"	"7500681"
"7503569"	"7523827"	"7686260"
"7703776"	"7819407"	"7823893"
"7845653"	"7883096"	"7905353"
"7905502"	"7938412"	"8132819"
"8226092"	"8505729"	"8567796"
"8657307"	"8668209"	"9132543"
"9566990"	"D417338"	"D437484"
"D536525"	"D542496"	"D640869"
"D653832"	"D654241").PN. OR	
("RE47022").URPN.		

S310	28	(US-20170266804-\$ or US-20170217464-\$ or US-20170174392-\$ or US-20170166352-\$ or US-20160168880-\$ or US-20160144500-\$ or US-20160130034-\$ or US-20140166516-\$ or US-20120326406-\$ or US-20100219193-\$ or US-20090145866-\$ or US-20070194543-\$ or US-20070068757-\$ or US-20060254946-\$ or US-20060027475-\$ or US-20110139665-\$).did. or (US-9506489-\$ or US-9132543-\$ or US-8813960-\$ or US-8677661-\$ or US-8459495-\$ or US-8132819-\$ or US-6641013-\$ or US-6085925-\$ or US-5988473-\$ or US-5628443-\$ or US-5595228-\$ or US-3117692-\$).did.	US-PGPUB; USPAT	OR	OFF	2019/12/22 20:08
S311	14	(US-20180290288-\$ or US-20180161975-\$ or US-20170239808-\$ or US-20170121056-\$ or US-20080169739-\$ or US-20080134607-\$ or US-20080104921-\$ or US-20060038367-\$).did. or (US-9872562-\$ or US-9566990-\$ or US-7841144-\$ or US-6547347-\$ or US-5429260-\$).did. or (US-2430200-\$).did.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/12/22 20:08
S312	7	(US-20170318927-\$ or US-20170166352-\$ or US-20110220531-\$ or US-20110073516-\$).did. or (US-9701443-\$ or US-3974898-\$ or US-3506321-\$).did.	US-PGPUB; USPAT	OR	OFF	2019/12/22 20:08
S313	1	(US-20140161518-\$).did.	US-PGPUB	OR	OFF	2019/12/22 20:08
S314	49	S310 S311 S312 S313	US-PGPUB; USPAT; USOCR	OR	OFF	2019/12/22 20:08
S315	0	("2018/0290288").URPN.	USPAT	OR	OFF	2019/12/22 20:09
S316	0	("2017/0166352").URPN.	USPAT	OR	OFF	2019/12/22 20:09
S317	36	("0455883" "0484121" "0918297" "20060175945" "20100052276" "20110279956" "20120086319" "20130134850" "2341434" "2431830" "2441728" "3058320" "3135570" "3326203" "3712697" "4590709" "5011240" "5026130" "5048902" "5145245" "5673984" "6068356" "6164738" "8201900" "D322875").PN. OR ("9872562").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/12/22 20:09
S318	11	(US-20170318927-\$ or US-20170166352-\$ or US-20110220531-\$ or US-20110073516-\$ or US-20190106244-\$ or US-20170138382-\$ or US-20180290288-\$).did. or (US-9701443-\$ or US-3974898-\$ or US-3506321-\$ or US-10434638-\$).did.	US-PGPUB; USPAT	OR	OFF	2019/12/22 20:18
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EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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S249	139	A45C7/0045.cpc.	USPAT	OR	OFF	2019/02/20 19:41
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S251	475	A47B67/04.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:07
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S254	1073	B65D21/0217,0219,0222,0228,023.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:08
S255	348	B65D25/2823,06.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:08
S256	2120	B25H3/021,022,023,04,06.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:08
S257	598	Y10T403/7045.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:09
S258	522	A47B88/90.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:09
S259	916	B25H3/02.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:09
S260	471	B65D21/0204.cpc.	US- PGPUB; USPAT	OR	OFF	2019/02/20 20:09
S261	139	A45C7/0045.cpc.	USPAT	OR	OFF	2019/02/20 20:09
S263	1674	206/508,511,504,302,501.ccls.	USPAT	OR	OFF	2019/02/20 20:10
S264	2380	280/47.18,47.19,47.26,79.2.ccls.	USPAT	OR	OFF	2019/02/20 20:10
S265	554	280/47.28,652.ccls.	USPAT	OR	OFF	2019/02/20 20:11
S266	1372	312/107,111.ccls.	USPAT	OR	OFF	2019/02/20 20:11
S267	0	("9701443").URPN.	USPAT	OR	OFF	2019/02/20 20:49
S268	0	("2019/0039781").URPN.	USPAT	OR	OFF	2019/02/20 20:54
S269	0	("2019/0002004").URPN.	USPAT	OR	OFF	2019/02/20 21:02
S270	0	("2009/0103279").URPN.	USPAT	OR	OFF	2019/02/20 21:06
S271	0	("2009/0103279").URPN.	USPAT	OR	OFF	2019/02/20 21:07

EAST Search History

S272	1	("2006/0006770").URPN.	USPAT	OR	OFF	2019/02/20 21:07
S273	40	("1092651" "2565969" "2891639" "3028207" "3032381" "3506321").PN. OR ("3974898").URPN.	US- PGPUB; USPAT	OR	OFF	2019/02/20 21:55
S274	48	("3506321").URPN.	USPAT	OR	OFF	2019/02/20 21:56
S275	46	("2988412" "3032381" "3506321" "3514170" "3529878").PN. OR ("3642337").URPN.	US- PGPUB; USPAT	OR	OFF	2019/02/20 21:57
S276	24	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	OFF	2019/02/20 22:58
S277	24	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	OFF	2019/02/20 23:00
S323	2	"Term Removed"	US- PGPUB	OR	OFF	2019/12/22 20:08
S324	2	"Term Removed"	US- PGPUB	OR	OFF	2019/12/22 20:18

12/ 22/ 2019 10:38:23 PM

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Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: December 5, 2019 (use as many sheets as necessary)				Application Number	16/216,724
				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	1	of	2	Attorney Docket Number	066749-2270

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 Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS					
Exami ner Initials*	Cite No. ¹	U.S. Patent Application Document	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
		Serial Number-Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS						
Exami ner Initials*	Cite No. ¹	Foreign Patent Document	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
		Country Code ³ - Number*Kind Code ⁵ (if known)				
/G.R.W/	A1	WO07121745	11-01-2007	MADSEN JENS OLE		
	A2	WO07121746	11-01-2007	MADSEN JENS OLE		
	A3	WO09140965	11-26-2009	MADSEN JENS OLE		
	A4	WO11009480	01-27-2011	RICKLEFSEN DIRK et al.		
	A5	WO13026084	02-28-2013	VAN DER LINDE et al.		
	A6	WO14125488	08-21-2014	BRUNNER YARON		
	A7	WO17212840	12-14-2017	FURUTA YOSHIHISA		
	A8	WO2007121745A1	11-01-2007	MADSEN JENS OLE		
/G.R.W/	A9	WO2017191628	11-09-2017	BRUNNER YARON		

NON PATENT LITERATURE DOCUMENTS			
Exami ner 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
/G.R.W/	A10	International Search Report and Written Opinion for International Application No. PCT/US2018/033161, dated August 6, 2018, 14 pages.	
/G.R.W/	A11	International Search Report and Written Opinion for International Application No. PCT/US2019/014940, dated July 26, 2019, 7 pages.	

Examiner Signature	/GIDEON R WEINERTH/	Date Considered	12/22/2019
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*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.

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 Date Submitted: December 5, 2019 <i>(use as many sheets as necessary)</i>				Application Number	16/216,724
				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	2	of	2	Attorney Docket Number	066749-2270

NON PATENT LITERATURE DOCUMENTS			
Exami ner 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
	A12	International Search Report and Written Opinion for International Application No. PCT/IL2019/050689, dated August 23, 2019, 21 pages.	
	A13	STUART, "Sys-Cart Base, a Systainer Mounting Platform," TOOLGUYD, July 28, 2014, https://toolguyd.com/systainer-sys-cart-mounting-base/ , 11 pages.	
	A14	"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.	
	A15	"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.	
	A16	"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.	
	A17	"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.	
	A18	STUART, "Ryobi ToolBlox Tool Cabinet System!", TOOLGUYD, September 18, 2014, https://toolguyd.com/ryobi-toolblox-cabinets/ , 23 pages.	
	A19	"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.	
	A20	"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.	
	A21	Sortimo Logistix, "Mobile Sortimente", brochure, believed to be available at least as early as November 29, 2017, 17 pages.	
	A22	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.	
	A23	Batavia GmbH, BluCave Storage System, https://protect-us.mimecast.com/s/5XIGCR6KypcgJnIKi9FDoim?domain=batavia.eu , believed to be available at least as early as November 29, 2017, 7 pages.	
	A24	VERTAK, https://www.alibaba.com/product-detail/Vertak-global-patented-multi-function-portable-60217794260.html , believed to be available at least as early as November 29, 2017.	

Examiner Signature		Date Considered	
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*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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If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)							
Application Number	16/216,724	Filing Date	2018-12-11	Docket Number (if applicable)	066749-2270	Art Unit	3736
First Named Inventor	Yaron Brunner			Examiner Name	WEINERTH, GIDEON R		
This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV							
SUBMISSION REQUIRED UNDER 37 CFR 1.114							
Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).							
☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____ ☐ Other _____							
☒ Enclosed ☐ Amendment/Reply ☒ Information Disclosure Statement (IDS) ☐ Affidavit(s)/ Declaration(s) ☐ Other _____							
MISCELLANEOUS							
☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)							
☐ Other _____							
FEES							
☒ The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed. The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No <u>180882</u>							
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED							
☒ Patent Practitioner Signature ☐ Applicant Signature							

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Signature of Registered U.S. Patent Practitioner			
Signature	/Derek H. Campbell/	Date (YYYY-MM-DD)	2020-01-14
Name	Derek H. Campbell	Registration Number	70608

This collection of information is required by 37 CFR 1.114. 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 12 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.

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

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.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
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.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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 inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Milwaukee Electric Tool Corporation
Title: Utility Assembly and Coupling Mechanism
Appl. No.: 16/216,724
Filing Date: December 11, 2018
Examiner: WEINERTH, GIDEON R
Art Unit: 3736
Confirmation Number: 1402

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.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b)(4), before the mailing of a first Office action after the filing of a Request for Continued Examination under §1.114.

RELEVANCE OF EACH DOCUMENT

The relevance of the foreign-language document is shown in the figures of foreign-language documents and/or are described in the English-language abstract submitted herewith, where available. An English 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).

References A4-A16 were previously identified in the subject application and were submitted in the parent application, although it appears they were not considered in the subject application. The Applicant is re-identifying these references and submitting them out of an abundance of caution to confirm they are properly considered and of record in the subject application.

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 January 14, 2020

By /Derek H. Campbell/

Reinhart Boerner Van Deuren s.c.
Customer Number: 142078
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Derek H. Campbell
Attorney for Applicant
Registration No. 70,608

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Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: January 14, 2020 <i>(use as many sheets as necessary)</i>				Application Number	16/216,724
				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	1	of	2	Attorney Docket Number	066749-2270

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	2019/0225371	07-25-2019	Hoppe et al.	

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

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
	A2	EM000705231-0001	04-12-2007	Terry Store-Age S.P.A.		
	A3	EM002419283-0001	03-06-2014	Keter Plastic Ltd.		
	A4	JP 1276744	07-18-2006	Hirofumi Kishimoto		
	A5	JP 1477050	08-19-2013	Ryosuke Omachi		
	A6	KR 30-0271616	02-09-2000	Joong Chui Ahm		
	A7	KR 30-0320243	06-10-2002	Joung Gu Kang		
	A8	TW 135074	06-01-2010	Yi Hua Wu		
	A9	TW 168686	07-01-2015	Kang Delun Business Co., Ltd.		
	A10	TW 174412	03-21-2016	Lee Hsin Chang		
	A11	DE 202015105053	10-31-2016	AUER PACKAGING GMBH		
	A12	DE 202015005752	11-21-2016	PLASTON AG		
	A13	CN 2608238	03-31-2004	BAO JIANGANG		
	A14	WO 2016142935	09-15-2016	BRUNNER, Yaron et al.		
	A15	WO 2017028845	02-23-2017	ROTHENBERGER AG		

Examiner Signature		Date Considered	
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*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. 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 Date Submitted: January 14, 2020 <i>(use as many sheets as necessary)</i>				Application Number	16/216,724
				Filing Date	December 11, 2018
				First Named Inventor	Yaron Brunner
				Art Unit	3736
				Examiner Name	WEINERTH, GIDEON R
Sheet	2	of	2	Attorney Docket Number	066749-2270

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
	A16	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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*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. 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.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

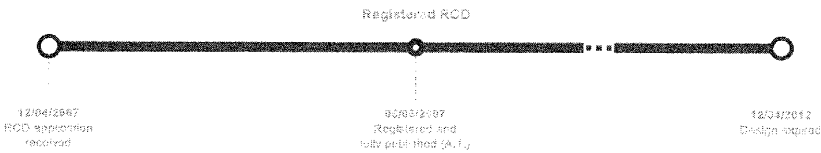


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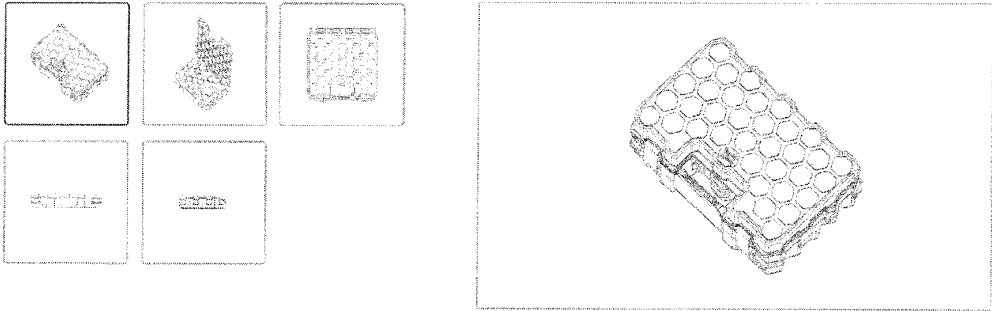
RCD file information

000705231-0001

Timeline



Graphic representation



Design information

Design number	000705231-0001	Filing language	ITALIAN
Name		Second language	ENGLISH
Filing date	12/04/2007	Reference	O.13537
Registration date	12/04/2007	Vienna Classification	
Expiry date	12/04/2012	Verbal element	
Design status	Design lapsed		

Indication of the product, (RcdClass)

Locarno	03.01	English
Values	Suitcases	

Owners

TERRY STORE-AGE S.P.A.

ID	79885	Country	IT - Italy	Correspondence address		
Organisation	TERRY STORE-AGE S.P.A.	State/country	n/a	TERRY STORE-AGE S.P.A.	Hidden. You can set your contact details to be publicly available via the User Area.	
	We also use analytics on our website to support technical features that enhance your user experience. We also use analytics via Rembrandt, 27					
Legal status	Legal entity	Town	Milano	120147 Milano x		
		Post code	20147	ITALIA		

Address
**Via
Rembrandt,
27**

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contact details to be publicly
available via the User Area.

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contact details to be publicly
available via the User Area.

Representatives

UFFICIO BREVETTI RAPISARDI S.R.L.

ID	15058	Country	IT - Italy	Correspondence address	
Organisation	n/a	State/country	n/a	UFFICIO BREVETTI RAPISARDI S.R.L.	Hidden. You can set your contact details to be publicly available via the User Area.
Legal status	Legal person	Town	Milano	Via Serbelloni, 12	
Type	Association	Post code	20122	I-20122 Milano	
		Address	Via Serbelloni, 12	ITALIA	Hidden. You can set your contact details to be publicly available via the User Area.
					Hidden. You can set your contact details to be publicly available via the User Area.

Designers

No data

Exhibition priority

No data

Priority

No data

Publications

Bulletin number	Date	Section	Description
2007/083	05/06/2007	A.1	Applications published under Articles 48 and 50 CDR
2013/024	04/02/2013	C.2	Expired registrations
Showing 1 to 2 of 2 entries			

Recordals

No data

Appeals

No data

Decisions

No data

Renewals

No data

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Documents

	Date	Type	Procedure	File	Portfolio	Language	Pages	Actions
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Showing 1 to 1 of 1 entries								

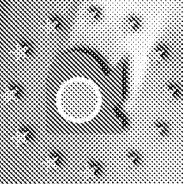
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Registered / Eingetragen 06/03/2014

No 002419283-0001



OHIM – OFFICE FOR HARMONIZATION
IN THE INTERNAL MARKET
TRADE MARKS AND DESIGNS

CERTIFICATE OF REGISTRATION

This Certificate of Registration is hereby issued for the
Registered Community Design identified below. The
corresponding entries have been recorded in the
Register of Community Designs.

HABM – HARMONISIERUNGSAMT FÜR
DEN BINNENMARKT
MARKEN, MUSTER UND MODELLE

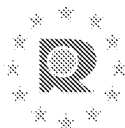
EINTRAGUNGSRKUNDE

Diese Eintragungsurkunde wird für das unten genannte
eingetragene Gemeinschaftsgeschmacksmuster
ausgestellt. Die entsprechenden Einträge sind in das
Register für Gemeinschaftsgeschmacksmuster
aufgenommen worden.

The President / Der Präsident

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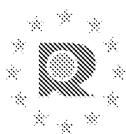
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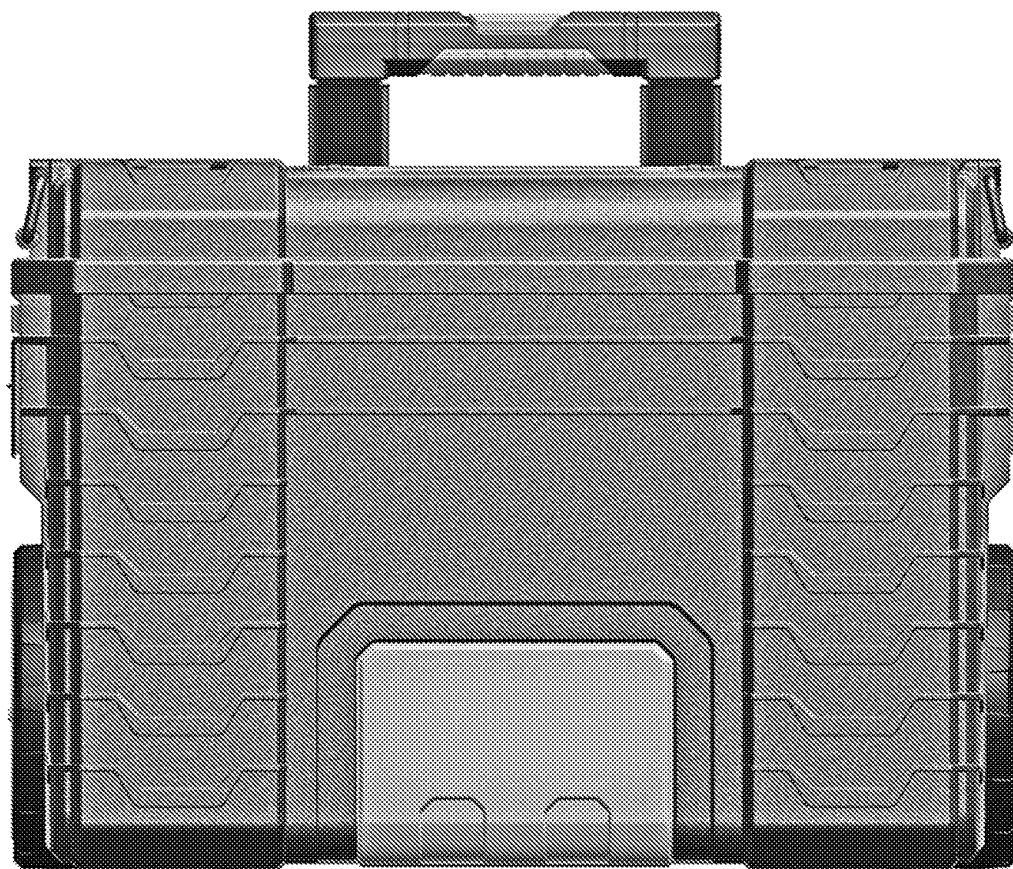
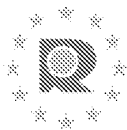
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72 Yaron BRUNNER
73 Keter Plastic Ltd.
2 Sapir Street Industrial Zone
Herzelyia 4685206
ISRAEL
74 MODIANO JOSIF PISANTY & STAUB LTD
Thierschstr. 11
D-80538 München
ALEMANIA
51 03 - 01
54 BG - Сандъчета за инструменти

ES - Estuches de herramientas
CS - Kufříky na nářadí
DA - Værktøjskasser
DE - Taschen (Werkzeug-)
ET - Tööriistakastid
EL - Εργαλειοθήκες
EN - Tool cases
FR - Trousses à outils [contenants]
IT - Custodie per attrezzi
LV - Darbarīku somas
LT - Įrankių dėžutės dėklai
HR - Kutije za alat
HU - Szerszámtartók
MT - Kaxxetti tal-ghodda
NL - Gereedschapskisten
PL - Skrzynki narzędziowe
PT - Estojos de ferramentas
RO - Lăzi pentru unelte
SK - Kufříky na náradie
SL - Kovčki za orodje
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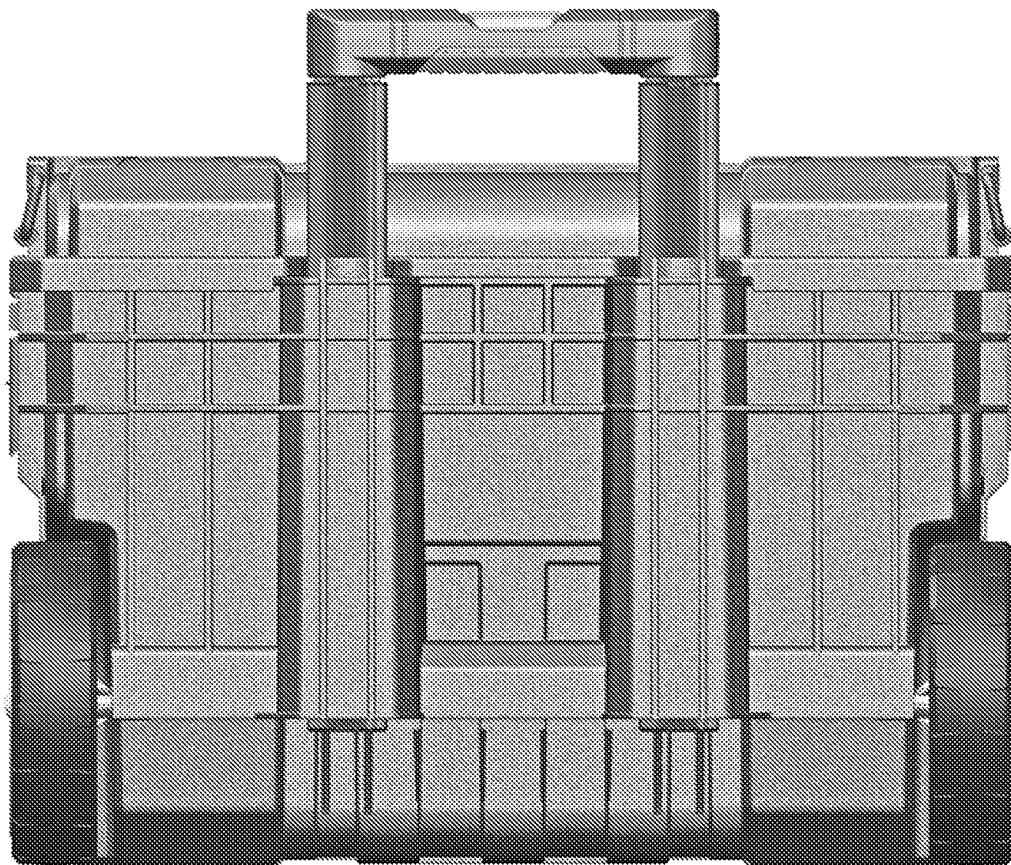
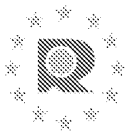
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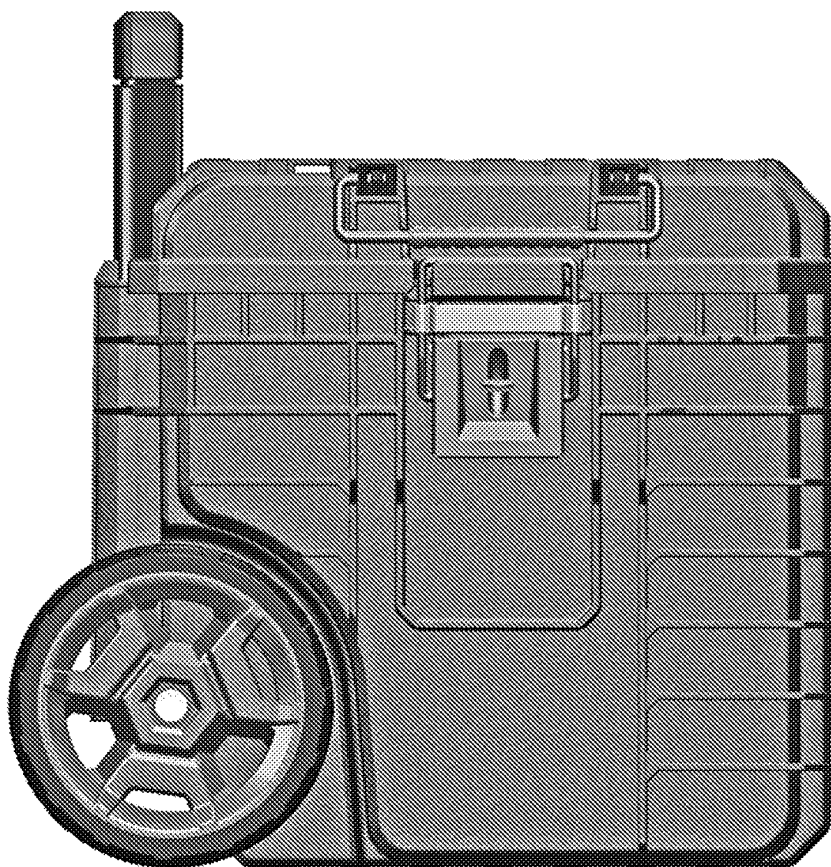
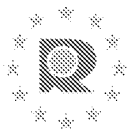
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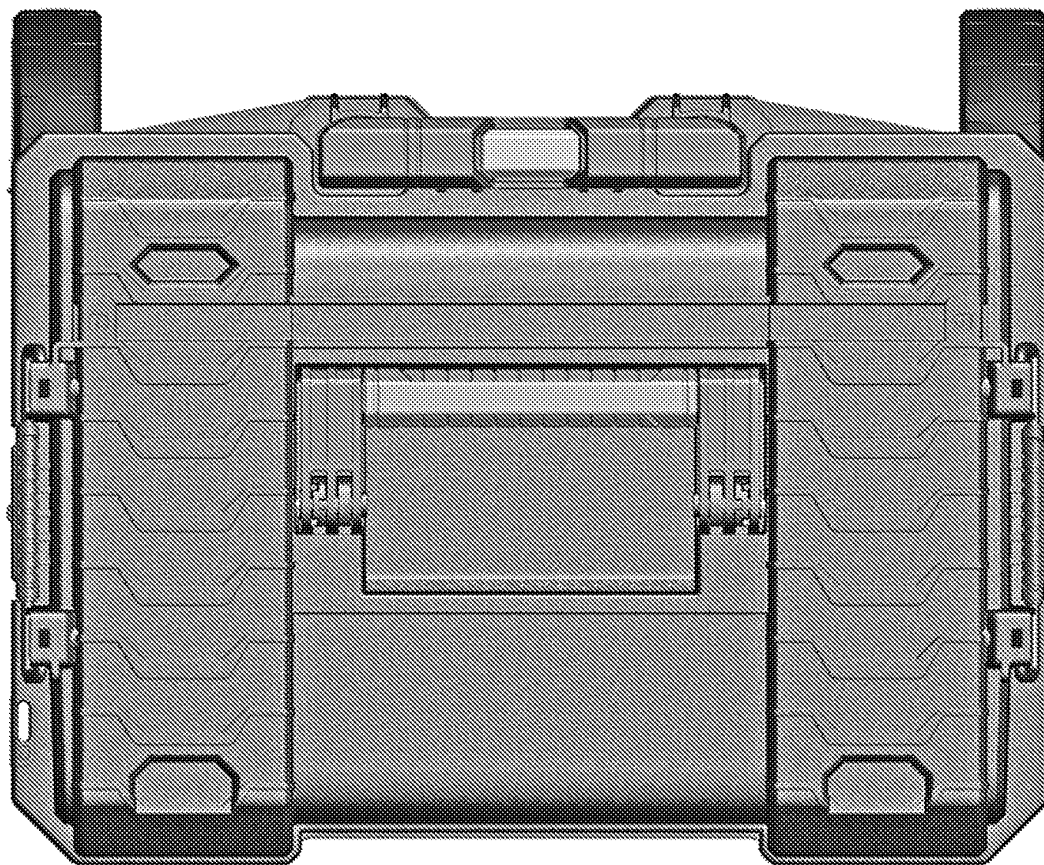
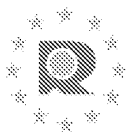
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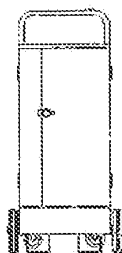
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<JP 201276744>

- (19) 【発行国】日本国特許庁(JP)
 (45) 【発行日】平成18年7月18日(2006. 7. 18)
 (12) 【公開種別】意匠公報(S)
 (11) 【登録番号】意匠登録第1276744号(D1276744)
 (24) 【登録日】平成18年6月2日(2006. 6. 2)
 (54) 【意匠に係る物品】走行輪付き災害救助工具収納箱
 (52) 【意匠分類】K1-54
 (51) 【国際意匠分類(参考)】03-01
 (21) 【出願番号】意願2005-23044(D2005-23044)
 (22) 【出願日】平成17年8月9日(2005. 8. 9)
 (72) 【制作者】
 【氏名】岸本 博文
 【住所又は居所】大阪府枚方市招提田近3丁目5番地 株式会社初田製作所内
 (73) 【意匠権者】
 【識別番号】391008320
 【氏名又は名称】株式会社初田製作所
 【住所又は居所】大阪府枚方市招提田近3丁目5番地
 【審査官】吉田 英生
 (56) 【参考文献】意登407177 意登1170588 アメリカ意匠公報: オフィシャル ガゼット、
 4号、1245巻、(2001-4-24)、4929頁、441161、(特許庁意匠課公知資料番号HH1
 3015249) TOOLS & OTHERS、3頁、(特許庁意匠課公知資料番号HD13000630)
 (55) 【意匠に係る物品の説明】(1) 本物品は、バランスボール、パイプ柄丸ジョベル、ハンマーフルハン、
 油圧ジャッキ、荷締機(中型)、ボルトクリッパー、万能鋸、標識ロープ、本(鉄)工鋸、四つ折り担架等の災
 害救助工具をセットにして収納する工具収納箱を有し、この工具収納箱を左右二個の走行輪と後面の折り畳み可
 能な補助輪とにより移動可能な手押し台車上に搭載してなるものである。

【図面】

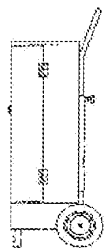
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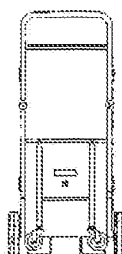
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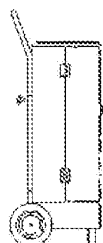
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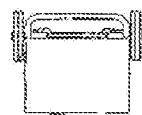
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【左側面図】



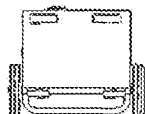
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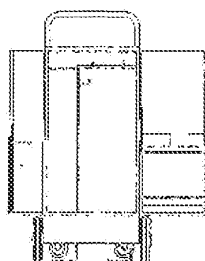
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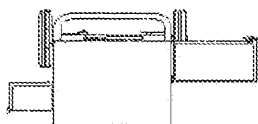
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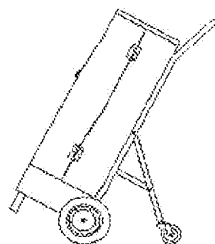
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【前面扉を開いた状態の平面図】



【走行状態を示す右側面図】

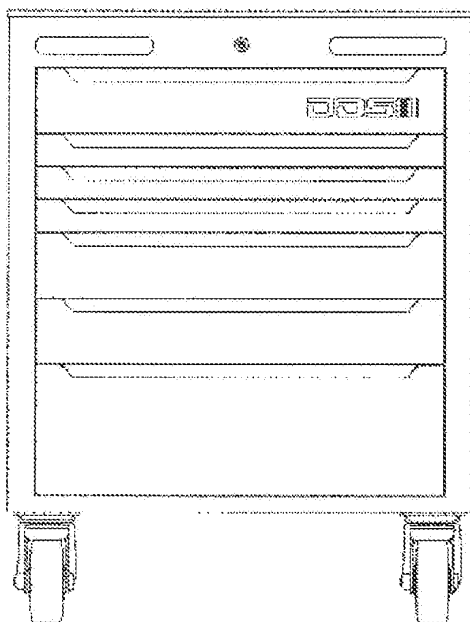


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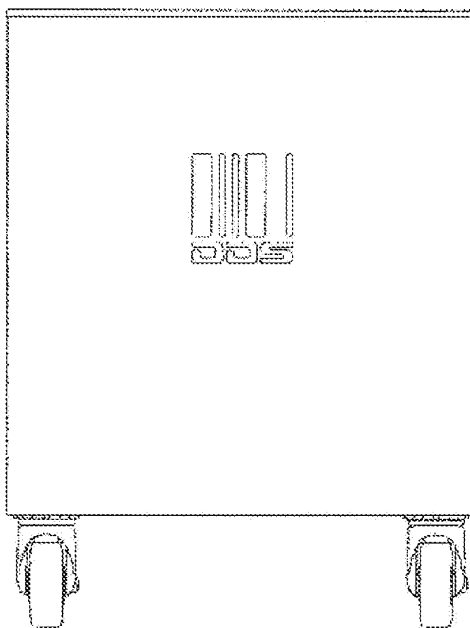
(19) 【発行国】日本国特許庁(JP)
 (45) 【発行日】平成25年8月19日(2013. 8. 19)
 (12) 【公報種別】意匠公報(S)
 (11) 【登録番号】意匠登録第1477050号(D1477050)
 (24) 【登録日】平成25年7月19日(2013. 7. 19)
 (54) 【意匠に係る物品】ツールキャビネット
 (52) 【意匠分類】K1-54
 (51) 【国際意匠分類(参考)】03-01
 (21) 【出願番号】意願2012-32303(D2012-32303)
 (22) 【出願日】平成24年12月18日(2012. 12. 18)
 (72) 【制作者】
 【氏名】大町 亮介
 【住所又は居所】埼玉県朝霞市膝折町4-8-45
 (73) 【意匠権者】
 【識別番号】511041961
 【氏名又は名称】株式会社大塚精機
 【住所又は居所】埼玉県朝霞市膝折町4-8-45
 【審査官】生龜 照恵
 (55) 【意匠に係る物品の説明】本物品は工作機械等で使用する様々なツール類を、複数のタイプ8引き出しに効率良く収納できるキャスター付小型キャビネット兼、作業台である。キャスター付きの為、作業エリア内で自由に移動する事ができる。複数の引き出しにはソフトクローズ機能を取り入れ、安全性・静音性を向上させると同時に、引き出しを押し当てても、ゆっくり閉まる直前の優美さを演出させた。また使用者がワゴンの移動に使うハンドルを本体正面の引き出し側に左右2か所設け、小スペースでも作業環境に影響のないように考慮、引き出しのない3面を他の設備等にぎりぎりまで寄せて使うことが出来る。
 (56) 【意匠の説明】材料は金属をメインとし、天板部分にはゴムシートをはめ込み作業台機能を持たせた。大きさは大人の腰の高さ程度とし視覚を通じて美観を高めた。キャビネットの外周4か所のコーナー部には丸みを持たせ、近年の工作機械のデザインにもマッチングさせた。又、引き出し側とは逆の背面にはロゴマークを大きく表現し、外観意匠性を向上させた。全引き出しの取手の形状は両サイドを内側斜め方向にカットし、シャープさと品感を表現した。ハンドルは美観を損なわないようデザイン・機能性を確立させ、ツールキャビネット全体をすっきりさせた。
 【図面】
 【正面図】

(2)

意匠登録1477050



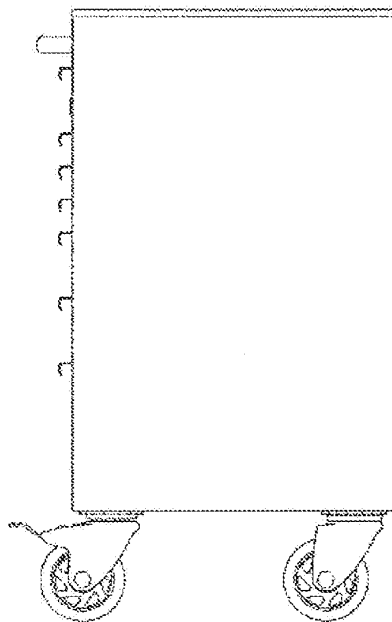
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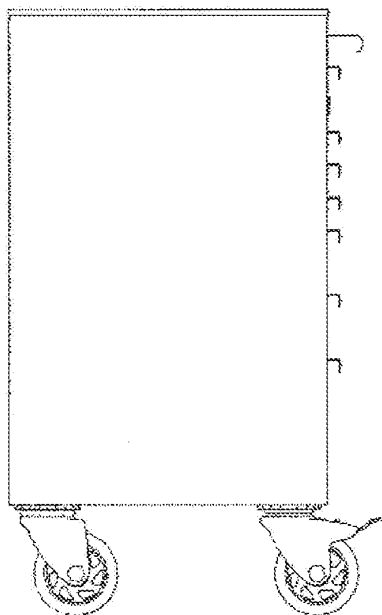
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意匠登録 1477050



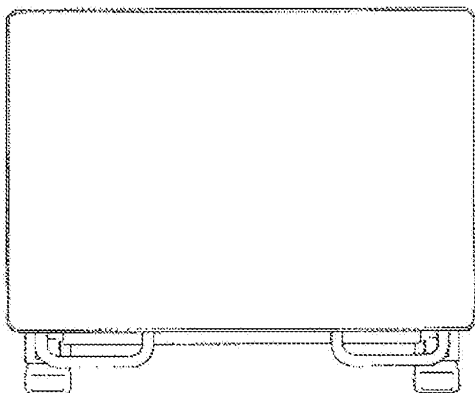
【左側面図】



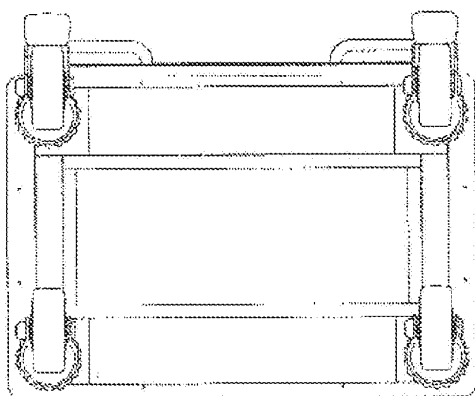
【平面図】

(4)

意匠登録1477050



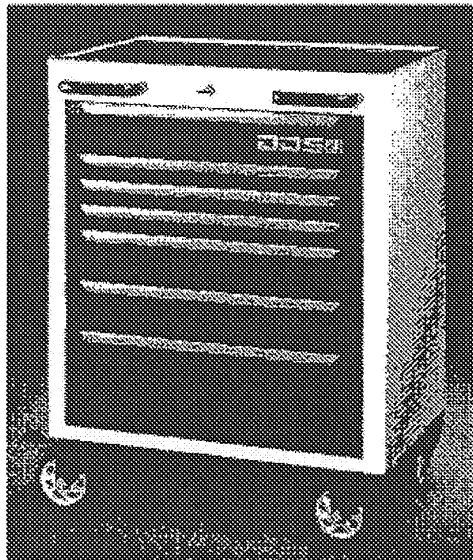
【底面図】



【参考図1】

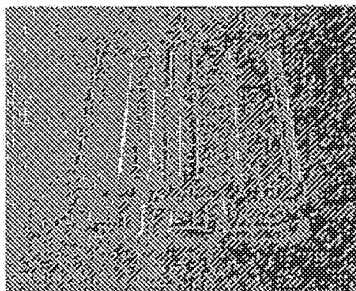
(5)

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全体図

【参考図2】

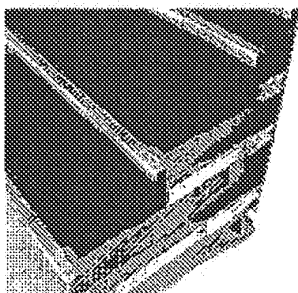


背面部ロゴ・エンボス加工

【参考図3】

(6)

意匠登録 1477050



引き出し部スライド・ソフトクローズ機能

(19) 대한민국특허청(KR)
(12) 등록의장공보(S)

(52) 분류 K1-53

(45) 공고일자 2001년02월15일

(11) 등록번호 30-0271616

(24) 등록일자 2000년12월29일

(21) 출원번호 30-2000-0003205

(22) 출원일자 2000년02월09일

(73) 등록권자 주식회사 쌍금 임중철
경북 김천시 구성면 하강리 101-9(72) 창작자 임중철
경기 성남시 분당구 수내동 51-3 파크타운대림아파트 105동1802호

(74) 대리인 임영희, 박중현

출원심사관 박미영

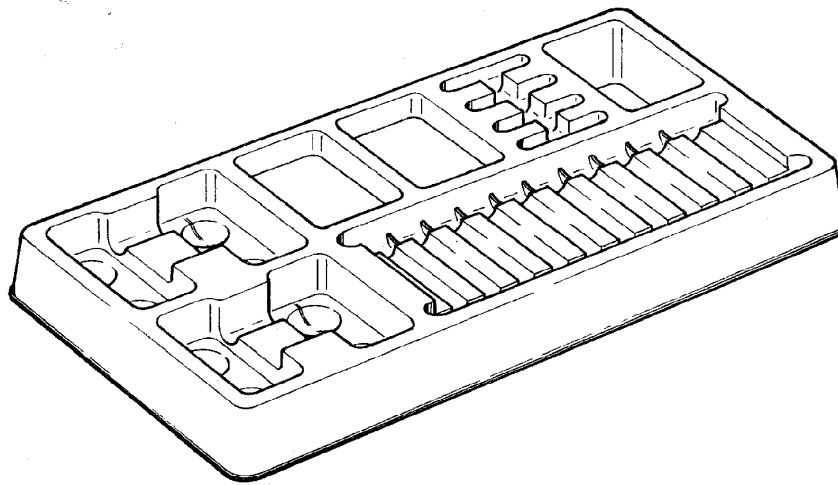
(54) 텔레비전 장식장용 부품케이스

의장 형식 내용의 요점

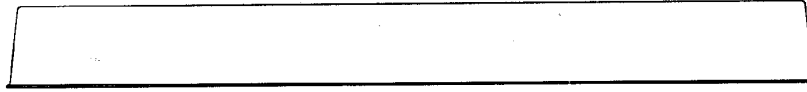
" 텔레비전 장식장용 부품케이스" 형상과 모양의 결합을 의장 창작 내용의 요점으로 함.

의장의 설명

1. 재질은 합성수지임.
2. 본원 의장은 텔레비전 장식장을 조립할때 사용하는 부품(나사, 핀, 경첩등)을 보관하는 물품임.

도면사시도

정면도



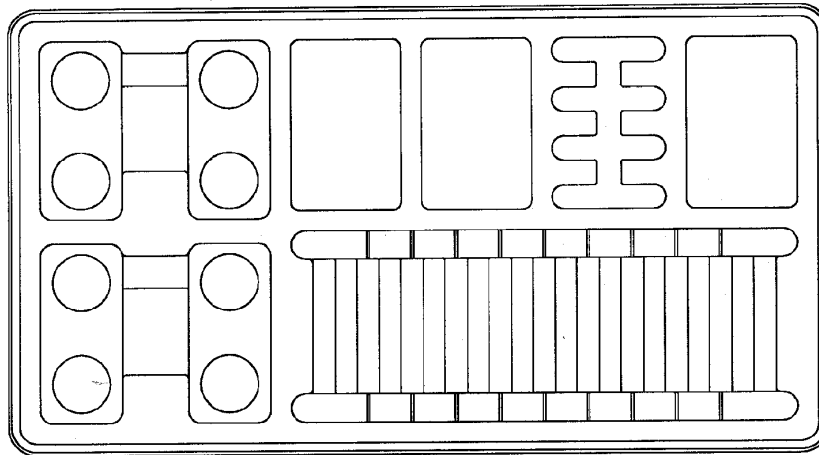
배면도(정면도의 동일)

좌측면도

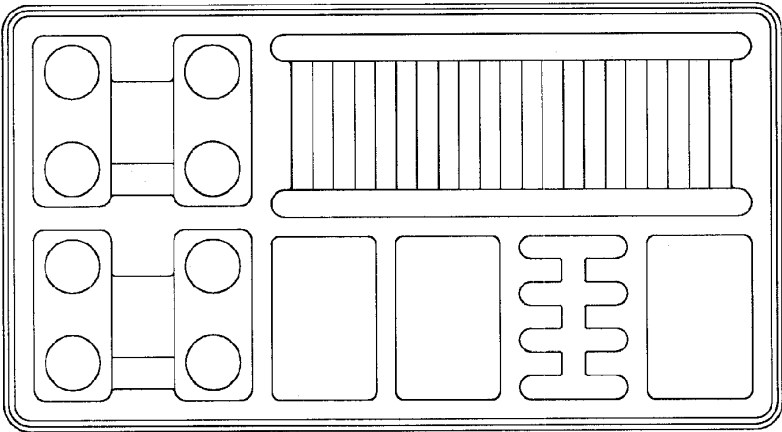


우측면도(좌측면도의 동일)

평면도



지면도



(19) 대한민국특허청(KR)
(12) 등록의장공보(S)

(52) 분류 F4- 533B무심사등록
분류 K1- 53

(45) 공고일자 2003년03월20일
(11) 등록번호 30- 0320243
(24) 등록일자 2003년03월07일

(21) 출원번호 30- 2002- 0016675
(22) 출원일자 2002년06월10일

(73) 등록권자 강종구
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(72) 창작자 강종구
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(74) 대리인 김학제

법정대표인 이상환

(54) 공구 포장용 상자

의장의 명칭

의장의 대상이 되는 물품
공구 포장용 상자

의장의 설명

1, 재질은 플라스틱 임.

2, 상부 케이스와 하부 케이스의 중간에 공구를 추가로 수납할 수 있는 폴립형의 수납판을 형성하여 더 많은 공구를 수납할 수 있게 한 것임.

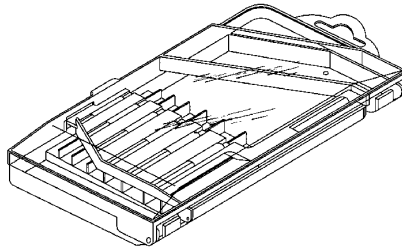
3, 내부에 포장된 공구를 볼 수 있도록 상부 케이스를 투명하게 형성한 것임.

4, 상부 뒷면에 접으면 포장용 상자안에 일체가 되고, 펼 경우 공구 포장용 상자를 걸 수 있는 접찰식 고리가 형성된 것임.

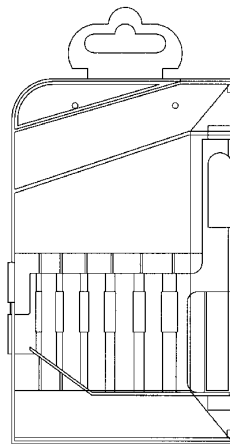
의장 창작 내용의 요점

"공구 포장용 상자"의 형상과 모양의 결합을 의장 창작 내용의 요점으로 함.

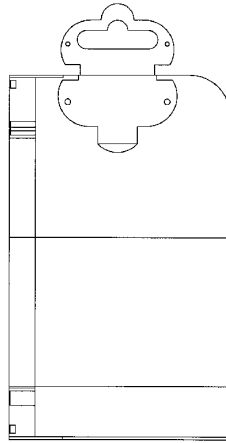
사시도



정면도



등록의장



등록의장

