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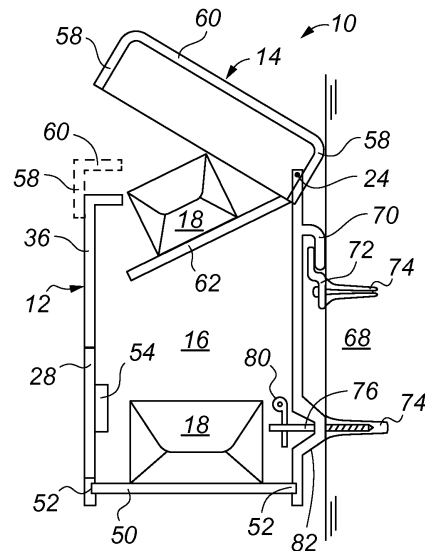
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(54) **Delivery receptacles**

(57) A delivery receptacle (10) comprising a packet-receiving compartment (16) suitable, in use, for storing packets (18) and being accessible via a first access aperture selectively closable by a lockable closure means (20), the packet-receiving compartment (16) additionally comprising a second access aperture closable by a second unlocked closure means (14), the said second closure means (14) comprising a packet-placement volume into which, in use, a packet (18) to be delivered can be placed, wherein the said second closure means (14) is moveable between first and second positions in either of which positions the second access aperture is closed, but wherein upon moving the second closure means (14) between the said first and second positions, a packet (18) placed into the packet-placement volume is transferred into the packet-receiving volume (16), characterised by: means for detachably affixing the delivery receptacle (10) to a wall (68) or other surface, the means for detachably affixing comprising a hook portion (70) engageable, in use, with a complementarily-shaped bracket (72) affixed to the wall (68) or surface, and a pin (76) also secured to the wall (68) or surface, which pin (76) is adapted, in use, to project into the interior of the delivery receptacle (16).



**Fig. 3**

## Description

**[0001]** This invention relates to delivery receptacles for post, parcels, packets and the like.

**[0002]** As the use of mail order delivery and online shopping increases, so the "final mile" delivery problem continues to grow. When a person places an order for an item to be delivered to a postal address, except in the case of small packets that can fit through a conventional letterbox, is normally necessary for the recipient to be available to accept delivery of the ordered item when it is delivered by a delivery service. The reason for this is that the retailer and the delivery agent needs to obtain a proof-of-delivery (POD), usually a signature, so as to avoid fraudulent claims for non-delivery of items. However, if the recipient is not present at the point and time of delivery, it is not possible for the delivery agent to obtain the necessary POD, which means that subsequent delivery attempts will need to be made, which are usually costly, time-consuming and inconvenient.

**[0003]** As a result of the inconvenience of having to wait for deliveries or re-delivery attempts, many online retail customers opt to have their parcels and packets delivered to a work address, but this causes problems for employers as there can be problems associated with accepting liability for signing for employees' deliveries, and, of course, provision needs to be made to store delivered items until such time as employees are able to collect them, for example, from the employer's reception area.

**[0004]** A need therefore exists for a delivery receptacle that can be unattended, but into which a delivery agent is able to securely deposit deliveries and obtain a proof of delivery.

**[0005]** There are many known solutions to this problem, which include relatively large lockable "drop boxes" into which a delivery agent can place a delivery, and which contain a user-changeable code that can serve as a proof of delivery. One example of such a system is described in published UK patent application number GB2274309. This system comprises a lockable box to which only certain people have access, which enables a delivery to be locked inside the box for subsequent collection by an authorised user. This system has the advantage of comprising a relatively large interior volume that can accommodate items that would not fit through a conventional letterbox, thus solving the "final mile" delivery problem. However, this system, in common with others like it, suffers from the disadvantage of only allowing one delivery at a time. The reason for this is that there is only one internal packet-receiving volume, which means that, unless multiple users are entrusted with access keys, only one delivery can be made at a time. The obvious solution, of course, is to provide multiple lock boxes at a property, but this can be unsightly.

**[0006]** An alternative solution is to provide a multi-compartmental delivery box in which there is one un-locked packet receiving compartment into which items can be

placed, and a system for transferring items placed in the un-locked compartment to a second, secure compartment, to which only certain users have access. One example of such a system is described in published UK patent application GB2242481, which discloses a drop box (in this case, for newspapers) having two compartments and a transfer mechanism for moving items from an un-locked compartment to a locked compartment, whilst inhibiting or preventing the unauthorised transfer of items from the secure compartment to the un-locked compartment. Such a system provides the convenience of allowing multiple deliveries to be made without having to install multiple drop boxes at a user's premises.

**[0007]** The disadvantage of systems such as GB2242481 is the fact that the transfer mechanism is complex, which can make it susceptible to jamming and failure, and which can add considerably to the drop box's purchase, installation and maintenance costs.

**[0008]** Known delivery receptacles also routinely suffer the disadvantage of being unsightly on the exterior of a property, which can be undesirable, especially where unattended deliveries are infrequent.

**[0009]** A need therefore arises for an alternative and/or an improved delivery receptacle, which solves one or more of the above problems.

**[0010]** According to the invention there is provided a delivery receptacle as set forth in the appendent claims. According to an aspect of the invention, there is provided a delivery receptacle comprising a packet-receiving compartment suitable, in use, for storing packets and being accessible via a first access aperture selectively closable by a lockable closure means, the packet-receiving compartment additionally comprising a second access aperture closable by a second unlocked closure means, the said second closure means comprising a packet-placement volume into which, in use, a packet to be delivered can be placed, wherein the said second closure means is moveable between first and second positions in either of which positions the second access aperture is closed, but wherein upon moving the second closure means between the said first and second positions, a packet placed into the packet-placement volume is transferred into the packet-receiving volume.

**[0011]** Suitably, the lockable closure means comprises a door, which preferably comprises a key-operated lock. The second unlocked closure means is suitably pivotally or slideably moveable between the said first and second positions. Suitably, the packet-placement volume can be integrally formed with the second closure means, or with a main body portion of the delivery receptacle.

**[0012]** According to another aspect of the invention, there is provided a delivery receptacle comprising first and second compartments, the first compartment comprising a delivery aperture communicating with the exterior of the delivery receptacle and a transfer aperture communicating with the second compartment, the delivery receptacle further comprising a closure means moveable between a first position in which the transfer aperture

is closed and a second position in which the delivery aperture is closed.

**[0013]** In use, an item to be delivered can be placed in the first compartment by moving the closure means to the first position to open the delivery aperture. Thereafter, the closure means can be moved to the second position such that the delivery aperture is closed and the transfer aperture opened to allow the item to be delivered to be transferred from the first compartment into the second compartment.

**[0014]** By such arrangements, the invention may suitably avoid the need to provide a lock for the packet-reception volume or the first compartment since items, once delivered, move into the second, packet-receiving compartment, which is inaccessible, by virtue of the closure means, when the first compartment is opened. Such an arrangement enables multiple deliveries to be made, without any delivery agents needing access codes, keys or the like to place items in the delivery receptacle. Meanwhile, once an item has been delivered, and transferred into the packet-receiving compartment, it is effectively secured since access cannot be gained to the second compartment via the first second access aperture.

**[0015]** The packet-placement volume is preferably located above, in use, the packet-receiving volume such that items placed in the packet-placement volume automatically fall into the second packet-receiving compartment when the second closure means is moved between the first and second positions.

**[0016]** The packet-receiving volume may be provided with shock absorbing means, such as one or more foam pads, to cushion the fall of items dropping into it.

**[0017]** The packet-receiving volume comprises a lockable closure means or door to enable the its contents to be removed by authorised persons only. Such a configuration may enable the number of keys or key codes, for example, in circulation to be reduced, thereby improving the security of the delivery receptacle. The second compartment preferably comprises an access panel, door or hatch, which is lockably closable using a key-operated lock, a combination lock or using any other suitable locking means, such as a digital lock, a remote controller, etc.

**[0018]** In various embodiments of the invention, the closure means suitably comprises a lip or flap that can slide or pivot between the first and second positions, or a flexible shutter that can slide between the first and second positions.

**[0019]** In a preferred embodiment of the invention, the second closure means comprises a hinged lid of the delivery receptacle which has an angled flap depending from it. When in the closed position, the hinged lid preferably seats against the periphery of the second access aperture to close it. However, when the hinged lid is opened, the flap pivots up in unison with the lid to close the second access aperture from the opposite side. Packets can then be placed on the flap and the lid closed such that the packet or packets pass through the second access aperture into the packet-receiving volume.

**[0020]** The delivery receptacle is preferably detachably affixable to a wall or other surface to enable it to be removed and stored when not in use, for example, when no deliveries are expected. The delivery receptacle is preferably detachably mountable to a surface (such as a wall or floor surface) by one or more brackets. In a preferred embodiment of the invention, the delivery receptacle is lockably and/or removably attachable to a surface.

**[0021]** The delivery receptacle may be manufactured from a number of relatively flat, interlocking panels to enable it to be flat-packed for initial delivery to an end user, but also to enable an end user to collapse it for convenient storage when not in use. Additionally or alternatively, the delivery receptacle may be formed from a set of interconnected panels formed as a sheet or net that can be folded to form a hollow packet-receiving enclosure. The panels may suitably be interconnected by integrally formed fold lines, hinges and/or other connectors.

**[0022]** The delivery receptacle is preferably manufactured from polymeric materials, which are suitably lightweight materials, such as injection-, or blow-moulded moulded plastics like virgin, recycled or blended polypropylene and polyethylene. Counter-intuitively, a plastics delivery receptacle has been found to be sufficiently secure because it has been realised that the delivery receptacle only needs to be as secure as the front door, say, of the property at which it has been installed. For practical and insurance purposes, there is no need for the delivery receptacle to be more secure than a front door if the risk of theft from the delivery receptacle is the same as, or lower than, the risk of theft of items delivered via a conventional letterbox or via a door-to-door delivery service.

**[0023]** Furthermore, by manufacturing the delivery receptacle from lightweight materials, such as from hollow panels of blow-moulded plastics, it is possible to reduce its weight, which can make the delivery receptacle easier to transport, install, remove, flat-pack etc. either by a delivery or installation agent, or by the end user throughout the life of the delivery receptacle.

**[0024]** The delivery receptacle preferably comprises a proof of delivery label, which preferably comprises a code and/or barcode that uniquely identifies the delivery receptacle. A delivery agent can thus use a handheld scanner or input device to scan or key-in the unique delivery receptacle code as evidence that a delivery was made to a particular box. A write-on area may also be provided, preferably adjacent the code or barcode, that a user may write a temporary code or other indicia on, that a delivery agent can scan or key-in to his/her proof of delivery device or slip as evidence that the delivery was made to a particular user's delivery receptacle. Such a configuration advantageously provides the option for a user to provide a unique code for each anticipated delivery without the need for complex number generators or other electronic devices. It has also been appreciated that most

delivery agents operate their own, proprietary parcel tracking and proof-of-delivery systems that can relay proofs-of-delivery instantaneously to retailers and customers, for example via e-mail and SMS messaging. As such, it has been discovered that a dedicated proof-of-delivery system incorporated into the delivery receptacle is unnecessary, and so the invention proposes to use a simple barcode and user-writing area in place of the complex, computerised, proof-of-delivery devices of other systems currently on the market.

**[0025]** Preferred embodiments of the invention shall now be described, by way of example only, with reference to the drawings in which:

Figure 1 is perspective view of a first embodiment of a delivery receptacle in accordance with the invention;

Figure 2 is a partial exploded view showing the construction of the delivery receptacle of Figure 1;

Figure 3 is schematic sectional view showing the operation of the delivery receptacle of Figures 1 and 2;

Figure 4 is a perspective view of the delivery receptacle of Figures 1 to 3 installed;

Figures 5 and 6 are schematic sectional views showing the operation of a second embodiment of a delivery receptacle according to the invention;

Figures 7 and 8 are schematic sectional views showing the operation of a third embodiment of a delivery receptacle according to the invention;

Figure 9 is a schematic view of a fourth embodiment of the invention in which the packet-receiving receptacle is formed from a folded net; and

Figures 10 and 11 are close-up partial cross sections of a fold line of the net shown in Figure 9.

**[0026]** In Figures 1 to 4, an embodiment of a delivery receptacle 10 according to the invention comprises a main body portion 12 and a lid 14. The main body portion 12 comprises a hollow packet receiving portion 16 into which packets 18 can be introduced via an access aperture 20 formed by the generally open top of the main body portion 12. The lid 14 is pivotally connected to the main body portion 12 by a pair of bolts 24 that extend through aligned apertures 26 in the lid 14 and main body portion 12 of the receptacle 10. Packets 18 can be removed from the packet receiving portion 16 via a hinged, lockable access door 28.

**[0027]** The main body portion 12 is formed from four blow-moulded, plastics side walls 30, 32, 34, 36 and a base 50 that inter-engage to form a hollow internal enclosure being the packet receiving portion 16. The vertical side edges of each of the side walls 30, 32, 34, 36 has a number of staggered projections 38 and recesses 40 that mate with one another when the main body portion 12 is assembled. The projections 38 and recesses 40 can be glued together, although in the illustrated embodiment, four elongate pins 42 are provided that slide into aligned vertical though holes (not visible) in the pro-

jections 38 to hold the side walls 30, 32, 34, 36 together. A small amount of adhesive can be used to keep the pins 42 in place, but nevertheless allow them to be removed to disassemble the receptacle 10, for example, to enable it to be flat-packed when not in use. The edges of the base 50 are receivable in a rebated channel 52 located towards the bottom of the side walls 30, 32, the rear wall 34 and the door 28 such that when the door 28 is closed, the base 50 is captured and cannot be removed.

**[0028]** The door 28 is provided with a simple key-operated lock 54 that enables the door 28 to be locked shut. Advantageously, by using a key-operated lock, it is possible for a user to easily change the lock cylinder for security reasons and to restrict access to the receptacle 10 as desired.

**[0029]** The lid 14 of the receptacle 10 is also manufactured from blow-moulded plastics and comprises a generally open-bottomed box having side walls 58 that depend downwardly from an upper wall 60. The lid 14 is pivotally connected to the main body portion 12 towards its rear edge, and when in a closed position, its side walls 58 overlap the upper edges of the side walls 30, 32, 34, 36 (as shown in Figure 3) thereby providing a water-shedding, weatherproof seal against the elements.

**[0030]** Integrally formed with the lid 14 is a closure flap 62 that is angled at approximately 80 degrees to the upper wall 60 of the lid 14. When the lid 14 is closed, the closure flap 62 projects into the packet-receiving volume 16 of the receptacle, whereas when the lid 14 is pivoted to an open position, the closure flap 62 pivots in unison therewith until it abuts the underside of a rearwardly-projecting lip portion 64 integrally formed with the upper edge of the front wall 36 of the main body portion 12. By such an arrangement, as shown in Figure 3, the lid 14 can be lifted and packets 18 placed on the upper surface of the closure flap 62, but when the lid 14 is subsequently closed, the packets 18 drop into the packet-receiving volume 16 of the delivery receptacle 10.

**[0031]** Once inside the packet-receiving volume 16, the packets 18 cannot be removed via the access aperture 20 because either the lid 14 or the closure flap 62 obstructs and/or prevents access to the interior of the packet-receiving volume 16. In addition, by angling the closure flap 62 and the upper surface 60 of the lid 14 at an angle of less than 90 degrees, and by providing the inwardly-projecting lip 64, it is very difficult for a thief to gain access using his/her arm, or even using a tool.

**[0032]** As shown in Figure 4, the door 28 can nevertheless be opened using a key in the lock 54 to recover the packet or packets 18 that have been deposited in the delivery receptacle.

**[0033]** The delivery receptacle 10 is detachably affixed to a wall 68 using a hook and pin arrangement that enables the delivery receptacle 10 to be taken down, and optionally flat-packed, when not in use. The rear wall 34 of the main body portion is provided with an integrally moulded hook portion 70 that engages a complementarily-shaped bracket 72 that is screwed to the wall 68 using

screws and wall plugs 74. The delivery receptacle 10 thus hangs from the hook portion 70, which is designed and constructed to take the weight of the delivery receptacle 10 itself and any packets 18 placed within it. To prevent the delivery receptacle from being un-hooked from the wall, a pin 76 is also screwed into the wall 68 at a point below the hook 70 and bracket 72, which pin 76 aligns with a through hole 78 located on the rear wall 34 of the main body portion 12. A locking pin 80 drops through a vertically-aligned through hole in the pin 76 from within the packet-receiving volume 16 thus preventing the receptacle 10 from being lifted or pivoted off the bracket 72. Conveniently, because the locking pin 80 is located inside the delivery receptacle, it does not itself need to be locked in place since it can only be accessed via the lockable door 28 to which only designated, authorised users have access.

**[0034]** It will also be noted, from Figure 4 in particular, that the rear wall 34 is provided with a rearwardly-projecting abutment 82 to space the rear wall 34 from the wall 68 thus maintaining it in a substantially vertical orientation.

**[0035]** Turning now to the alternative embodiment shown in Figures 5 and 6, a delivery receptacle 100 comprises a main body portion 102 constructed from a hollow, blow-moulded plastics box providing a hollow, internal packet-receiving volume 104. The front wall 106 comprises an access aperture 108 located above a lockable door 110, which access aperture 108 is closable by a roller shutter 112 formed from a number of hinged interlocking slats 114. The roller shutter 112 is guided to slide in channels (not shown) in the side walls (not shown) of the main body portion 102, such that it can be slid down, as shown in Figure 6, to provide a base wall 116 for an upper packet-placement volume 118 within the main body portion 102. In use, the roller shutter 112 can be slid down and a packet (not shown) placed on the upper surface 116 (formerly the rear surface) of the roller shutter 112, and when the shutter 112 is pulled back up, the base wall 116 retracts allowing the packet to drop into the packet-receiving volume 104 of the delivery receptacle 100.

**[0036]** As in the embodiment of Figures 1 to 4, when the closure means, i.e. the roller shutter 112 is up or down, access to the packet-receiving volume 104 is prevented or inhibited. Nevertheless, the action of closing the roller shutter 112 serves to transfer the packet into the secure packet-receiving volume, which can only be accessed by authorised users in possession of a suitable key.

**[0037]** The embodiment of Figures 5 and 6 also comprise a foam pad 120 located in the base of the delivery receptacle 104 to cushion the fall of packets as they drop into it.

**[0038]** In the alternative embodiment shown in Figures 7 and 8, a delivery receptacle 200 also comprises a main body portion 202 constructed from a hollow, blow-moulded plastics box providing a hollow, internal packet-receiv-

ing volume 204 for the secure storage of packets (not shown). The front wall 206 comprises an access aperture 208 located above a lockable door 210, which access aperture 208 is closable by a drawer 212. The drawer has a pivotally-connected base 214 that drops into the packet-receiving volume 204 when closed, but which pivots upwards as it slides over an inwardly-projecting lip 216 of the front wall 218 up to provide a packet-receiving surface 220 when the drawer 212 is opened. As the drawer 212 is closed, its base 214 is able to pivot down allowing the packet (not shown) to drop into the packet-receiving volume 204 of the delivery receptacle 200.

**[0039]** As in the previously-described embodiments, when the closure means, i.e. the drawer 212 is either opened or closed, access to the packet-receiving volume 204 is prevented or inhibited. Nevertheless, the action of closing the drawer 212 serves to transfer the packet into the secure packet-receiving volume 204, which can only be accessed by authorised users in possession of a suitable key.

**[0040]** The embodiments of Figures 5 to 8 also detachably affix to a wall 68 using a hook and pin type arrangement as previously described.

**[0041]** It will be noted that the delivery receptacle 10, 100, 200 is provided with a proof of delivery plate 90, which comprises a barcode element 92 that can be scanned by a delivery agent and which uniquely identifies the delivery receptacle 10, 100, 200 thus proving that a delivery was made to a particular location. The proof of delivery plate 90 additionally comprises a blank, write-on area 94, for example of white plastic, onto which a user can write, for example using a marker pen, a user-changeable code, that the delivery agent can note alongside the barcode reference thus proving that a delivery was, in fact, made.

**[0042]** The fourth embodiment of the invention 300 is shown in Figures 9 to 11 in which the packet-receiving receptacle 302 is formed by folding a net 304 manufactured from a hollow sheet of blow moulded polymer. The net 304 comprises a base 306, side walls 308, a rear wall 310 and a partial front wall 312 formed integrally with one another along fold lines 314. The fold lines 314 comprise a generally V-shaped recess 316 on the interior edge of the fold, which enables adjacent walls 306, 308, 310 and 312 to be folded towards one another. Where the various panels join, overlaps or edge formations (not shown) are preferably provided to shed rainwater away from the interior of the receptacle 302.

**[0043]** Adjacent each fold line 314, there is provided a set of staggered eyes 318 that are integrally formed with the interior surfaces 320 of the net 304 for receiving elongate retaining bars 322 that can be dropped into place, as indicated by the dashed lines in Figure 9, to reinforce the corners of the receptacle 302 and to maintain a desired internal angle between adjacent panels.

**[0044]** As can be seen in Figure 9, the front wall 312 extends approximately half way down the height of the receptacle 302 from its upper edge, to form a door aper-

ture through which packets (not shown) in the box 302 can be recovered. A hinged door 324 is provided that has eyes 326 extending from one edge, which eyes 326 engage with a retaining bar 322 to provide a hinged connection between the door 324 and the receptacle 302. The door 324 is provided with a key-operated lock 326 that engages with a recess 328 in the adjacent side wall 308 when the receptacle is assembled.

**[0045]** Although the receptacle has been shown to be constructed from hollow, blow-moulded panels, this need not necessarily be the case. For example the walls could be solid and/or manufactured from different materials and/or provided with different interconnecting means.

**[0046]** The packet-placement compartment is preferably large enough to accommodate packets having dimensions of up to 46cm x 35cm x 27cm, the largest standard packet size (without being deemed "oversize") by many retailers, such as Amazon RTM, being 45cm x 34cm x 26cm. The packet-receiving volume is large enough to accommodate at least one, but preferably two or three packets of the above dimensions, thus enabling multiple deliveries on any given day.

**[0047]** The invention is not restricted to the details of the foregoing embodiments, which are merely exemplary of the invention. For example, the shape and dimensions of the receptacle, the method of construction and the materials may be altered without departing from the scope of the invention. In addition, whilst providing the delivery receptacle with means to enable it to be detached from a wall may be beneficial in many cases, this does not mean that a delivery receptacle in accordance with the invention could be permanently affixed in place.

**[0048]** The following statements are not the claims, but relate to various aspects of the invention:

Statement 1. A delivery receptacle comprising a packet-receiving compartment suitable, in use, for storing packets and being accessible via a first access aperture selectively closable by a lockable closure means, the packet-receiving compartment additionally comprising a second access aperture closable by a second unlocked closure means, the said second closure means comprising a packet-placement volume into which, in use, a packet to be delivered can be placed, wherein the said second closure means is moveable between first and second positions in either of which positions the second access aperture is closed, but wherein upon moving the second closure means between the said first and second positions, a packet placed into the packet-placement volume is transferred into the packet-receiving volume.

Statement 2. A delivery receptacle per statement 1, comprising a main body portion comprising the hollow packet-receiving compartment.

Statement 3. A delivery receptacle per statement 2, wherein the main body portion is formed from a number of side walls and a base that inter-engage

to form the hollow packet-receiving compartment.

Statement 4. A delivery receptacle per statement 3, wherein the vertical side edges of each of the side walls comprises a number of staggered projections and recesses that mate with one another when the main body portion is assembled.

Statement 5. A delivery receptacle per statement 4, wherein the projections and recesses are interconnected using an adhesive and/or pins that slide into aligned vertical through holes in the projections.

Statement 6. A delivery receptacle per any of statements 3, 4 or 5, wherein edges of the base are receivable in rebates channels of the side walls.

Statement 7. A delivery receptacle per statement 2, wherein the main body portion is formed from a number of side walls packet-receiving compartment is formed by folding a net comprising a base, side walls, a rear wall and a front wall formed integrally with one another along fold lines. Statement 8. A delivery receptacle per statement 7, wherein the fold lines comprise generally V-shaped recess.

Statement 9. A delivery receptacle per statement 7 or statement 8, wherein staggered eyes are provided adjacent opposite sides of each fold line for receiving retaining means for reinforcing the corners of the receptacle and/or for maintaining a desired internal angle between adjacent panels. Statement 10. A delivery receptacle per any of statements 7, 8 or 9, wherein the front wall is a partial wall forming a door aperture below it.

Statement 11. A delivery receptacle per statement 10, further comprising a hinged door for closing the door aperture.

Statement 12. A delivery receptacle per any of statements 2 to 11, further comprising an overlap or edge formation overlapping a join between adjacent panels.

Statement 13. A delivery receptacle per any preceding statement, wherein the lockable closure means comprises a door comprising any one or more of the group comprising: a key-operated lock, a combination lock, a digital lock, and a remote controlled lock. Statement 14. A delivery receptacle per any preceding statement, wherein the second closure means comprises a moveable lid of the receptacle.

Statement 15. A delivery receptacle per statement 14, wherein the lid comprises side walls depending downwardly from an upper wall, such that when in a closed position, its side walls overlap the upper edges of main body portion.

Statement 16. A delivery receptacle per statement 14 or statement 15, wherein the packet-placement volume is formed by a closure flap integrally formed with, and extending at an angle from the underside of the lid.

Statement 17. A delivery receptacle per statement 16, wherein when the lid is closed, the closure flap projects into the packet-receiving volume of the re-

ceptacle, but when the lid is moved to an open position, the closure flap pivots in unison therewith to close the access aperture.

Statement 18. A delivery receptacle per statement 17, wherein a front wall of the main body portion comprises a rearwardly-projecting lip portion against whose underside the closure flap engages with the lid is opened.

Statement 19. A delivery receptacle per any preceding statement, wherein the packet-placement volume is located above, in use, the packet-receiving volume.

Statement 20. A delivery receptacle per statement 19, wherein the packet-receiving volume additionally comprises shock absorbing means for cushioning the fall of items dropping into it. Statement 21. A delivery receptacle per any of statements 1 to 13, wherein the second closure means comprises a shutter that can slide between the first and second positions.

Statement 22. A delivery receptacle per statement 21, wherein the shutter comprises a plurality of hingedly interconnected slats.

Statement 23. A delivery receptacle according to statement 21 or statement 22, wherein the main body portion comprises a front wall comprises a second access aperture located above a first, lockable door, which second access aperture is closable by the roller shutter, the roller shutter being constrained to slide such that when lowered, it slides across, and divides the interior of the main body portion into a packet-placement compartment located above the shutter and a packet-receiving compartment b the shutter.

Statement 24. A delivery receptacle according to statement 23, wherein when the roller shutter is slid down, a packet can be placed on the upper surface thereof, and when the shutter is subsequently slid up, the shutter retracts allowing the packet to drop into the packet-receiving volume of the delivery receptacle.

Statement 25. A delivery receptacle per any of statements 1 to 13, wherein the second closure means comprises a drawer having a pivotally-connected base adapted to drops into the packet-receiving volume when closed, but to pivot upwards to form a base of the drawer onto which, in use, a packet to be delivered can be placed, as the draw is opened.

Statement 26. A delivery receptacle per statement 25, wherein as the drawer is closed, its base is free to pivot down allowing the packet to drop into the packet-receiving volume the delivery receptacle located below the drawer.

Statement 27. A delivery receptacle according to any preceding statement manufactured from lightweight materials.

Statement 28. A delivery receptacle per statement 27, manufactured from injection, or blow-moulded moulded polymer.

Statement 29. A delivery receptacle per statement 28, manufactured from hollow panels of blow-moulded polymer.

Statement 30. A delivery receptacle according to any preceding statement, further comprising a proof of delivery device comprising a code and/or barcode that uniquely identifies the delivery receptacle and a write-on area.

Statement 31. A delivery receptacle according to any preceding statement, comprising means for detachably affixing the delivery receptacle to a wall or other surface.

Statement 32. A delivery receptacle according to statement 31, wherein the means for detachably affixing the delivery receptacle to a wall or other surface comprises hook portion engageable, in use, with a complementarily-shaped bracket affixed to the wall or surface, and a pin also secured to the wall or surface, which pin is adapted, in use, to project into the interior of the delivery receptacle. Statement 33.

A delivery receptacle according to statement 32, further comprising a locking pin or padlock engageable with the pin from within the packet-receiving volume.

Statement 34. A delivery receptacle according to any of statements 31 to 33, further comprising an rearwardly-projecting abutment.

Statement 35. A delivery receptacle per any preceding statement, wherein the internal dimensions of the packet-placement compartment are at least 45cm x 34cm x 26cm.

Statement 36. A delivery receptacle per any preceding statement, wherein the internal dimensions of the packet-placement compartment are at least 46cm x 35cm x 27cm.

Statement 37. A delivery receptacle per any preceding statement, wherein the internal dimensions of the packet-receiving compartment are at least 45cm x 34cm x 26cm.

Statement 38. A delivery receptacle per any preceding statement, wherein the internal dimensions of the packet-placement compartment are at least 46cm x 35cm x 27cm.

Statement 39. A delivery receptacle per any preceding statement, wherein the internal dimensions of the packet-placement compartment are at least any one or more of the group comprising: 90cm x 34cm x 26cm, 45cm x 68cm x 26cm, and 45cm x 34cm x 52cm.

Statement 40. A delivery receptacle substantially as hereinbefore described, with reference to, and as illustrated in, the accompanying drawings.

## Claims

1. A delivery receptacle (10) comprising a packet-receiving compartment (16) suitable, in use, for storing packets (18) and being accessible via a first access

- aperture selectively closable by a lockable closure means (20), the packet-receiving compartment (16) additionally comprising a second access aperture closable by a second unlocked closure means (14), the said second closure means (14) comprising a packet-placement volume into which, in use, a packet (18) to be delivered can be placed, wherein the said second closure means (14) is moveable between first and second positions in either of which positions the second access aperture is closed, but wherein upon moving the second closure means (14) between the said first and second positions, a packet (18) placed into the packet-placement volume is transferred into the packet-receiving volume (16), **characterised by:** means for detachably affixing the delivery receptacle (10) to a wall (68) or other surface, the means for detachably affixing comprising a hook portion (70) engageable, in use, with a complementarily-shaped bracket (72) affixed to the wall (68) or surface, and a pin (76) also secured to the wall (68) or surface, which pin (76) is adapted, in use, to project into the interior of the delivery receptacle (16).
2. A delivery receptacle as claimed in claim 1, comprising a main body portion (12) comprising the hollow packet-receiving compartment, which main body (12) portion is formed from a number of side walls (28,30,32,34) and a base (50) that inter-engage to form the hollow packet-receiving compartment (16) and in which the vertical side edges (40) of each of the side walls (28,30,32,34) optionally comprises a number of staggered projections (40) and recesses (38) that mate with one another when the main body portion is assembled, which projections (40) and recesses (38) are optionally interconnected using an adhesive and/or pins (42) that slide into aligned vertical through holes in the projections (40).
  3. A delivery receptacle as claimed in claim 1 or claim 2, wherein the packet-receiving compartment (16) is formed by folding a net (300) comprising a base (306), side walls (308), a rear wall (310) and a front wall (312) formed integrally with one another along fold lines (314), the fold lines optionally comprising generally V-shaped recess (316) and wherein staggered eyes (318) are suitably provided adjacent opposite sides of each fold line (314) for receiving retaining means (322) for reinforcing the corners of the receptacle and/or for maintaining a desired internal angle between adjacent panels.
  4. A delivery receptacle as claimed in claim 3, wherein the front wall (312) is a partial wall forming a door aperture below it, and further comprising a hinged door (324) for closing the door aperture (312).
  5. A delivery receptacle as claimed in any preceding claim, wherein the lockable closure means (28) comprises a door comprising any one or more of the group comprising: a key-operated lock, a combination lock, a digital lock, and a remote controlled lock.
  6. A delivery receptacle as claimed in any preceding claim, wherein the second closure means (14) comprises a moveable lid (14) of the receptacle (10).
  7. A delivery receptacle as claimed in claim 6, wherein the lid (14) comprises side walls (58) depending downwardly from an upper wall (60), such that when in a closed position, its side walls (58) overlap the upper edges of main body portion (12).
  8. A delivery receptacle as claimed in claim 6 or claim 7, wherein the packet-placement volume is formed by a closure flap (62) integrally formed with, and extending at an angle from, the underside of the lid (14), wherein when the lid (14) is closed, the closure flap (62) suitably projects into the packet-receiving volume (16) of the receptacle (10), but when the lid (14) is moved to an open position, the closure flap (62) pivots in unison therewith to close the access aperture and wherein a front wall (36) of the main body portion (12) optionally comprises a rearwardly-projecting lip portion against whose underside the closure flap (62) engages with when the lid (14) is opened.
  9. A delivery receptacle as claimed in any preceding claim, wherein the packet-placement volume is located above, in use, the packet-receiving volume (16), and/or, wherein the packet-receiving volume (16) additionally comprises shock absorbing means (120) for cushioning the fall of items (18) dropping into it.
  10. A delivery receptacle (10) as claimed in any of claims 1 to 4, wherein the second closure means comprises a shutter (112) that can slide between the first and second positions, the shutter optionally comprises a shutter is suitably constrained to slide such that when lowered, it slides across, and divides the interior of the main body portion (12) into a packet-placement compartment (118) located above the shutter (112) and a packet-receiving compartment (104) below the shutter, (112), such that when the roller shutter (112) is slid down, a packet (18) can be placed on the upper surface thereof, and when the shutter (112) is subsequently slid up, the shutter (112) retracts allowing the packet (18) to drop into the packet-receiving volume (104) of the delivery receptacle (100).
  11. A delivery receptacle as claimed in any of claims 1 to 4, wherein the second closure means comprises a drawer (212) having a pivotally-connected base (214) adapted to drop into the packet-receiving vol-



ume (204) when closed, but to pivot upwards to form a base of the drawer onto which, in use, a packet to be delivered can be placed, as the drawer (212) is opened.

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12. A delivery receptacle (10) according to any preceding claim manufactured from lightweight materials, such as from injection, or blow-moulded moulded polymer and/or from hollow panels of blow-moulded polymer.

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13. A delivery receptacle according to any preceding claim, further comprising a proof of delivery device (90) comprising a code and/or barcode that uniquely identifies the delivery receptacle and a write-on area.

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14. A delivery receptacle according to any preceding claim, further comprising a locking pin (80) or padlock engageable with the pin (76) from within the packet-receiving volume (16), and optionally comprising a rearwardly-projecting abutment (82).

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15. A delivery receptacle (10) as claimed in any preceding claim, wherein the internal dimensions of the packet-placement compartment are any one or more of the group comprising: at least 45cm x 34cm x 26cm; at least 46cm x 35cm x 27cm; at least 45cm x 34cm x 26cm; at least 46cm x 35cm x 27cm; 90cm x 34cm x 26cm; 45cm x 68cm x 26cm; and 45cm x 34cm x 52cm.

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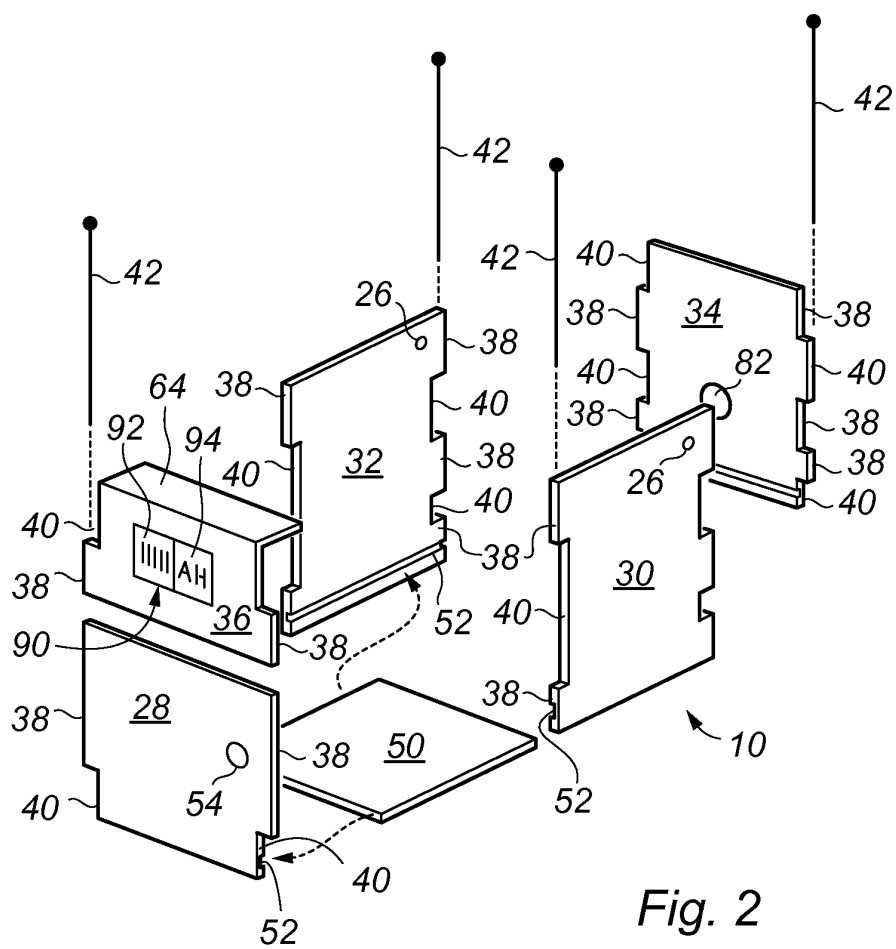
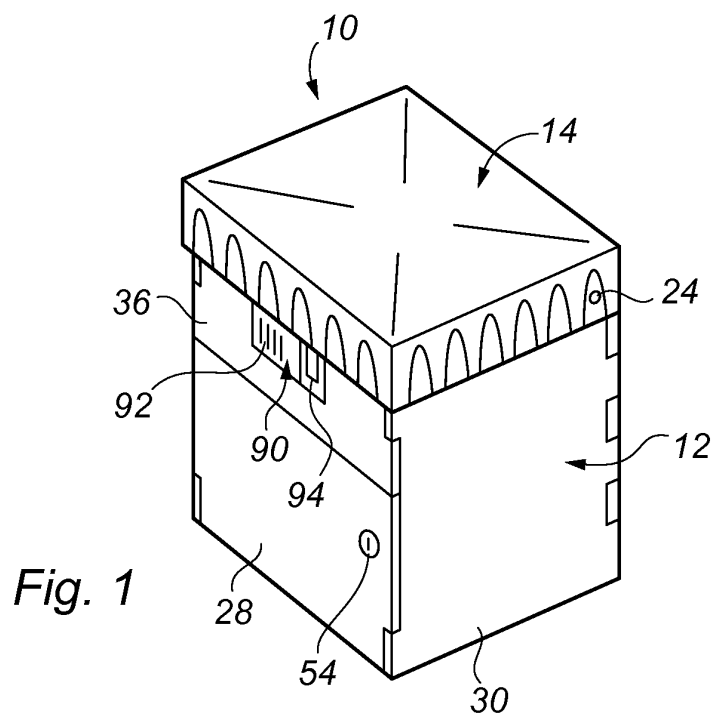
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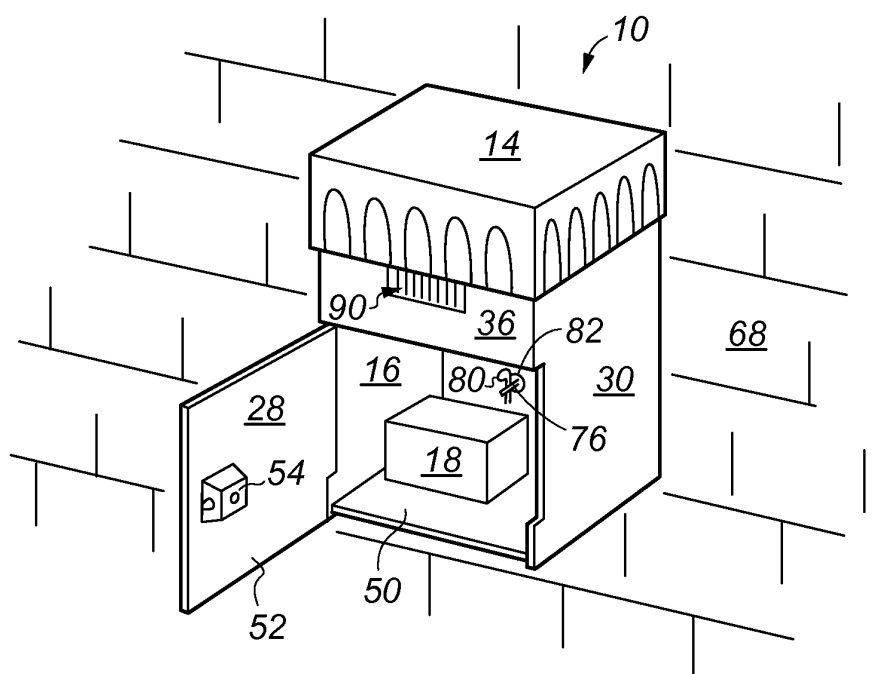
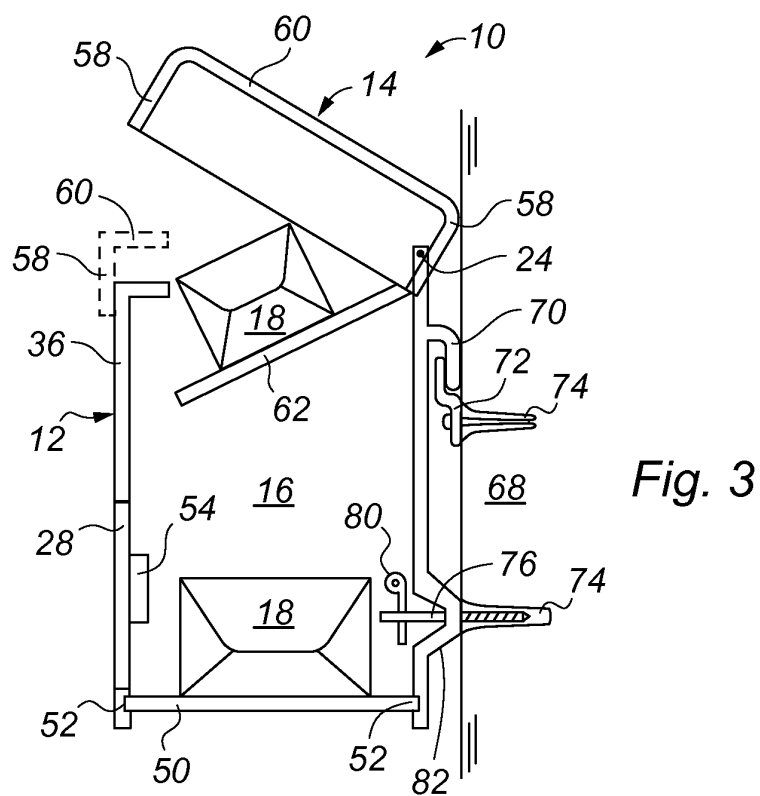
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*Fig. 4*

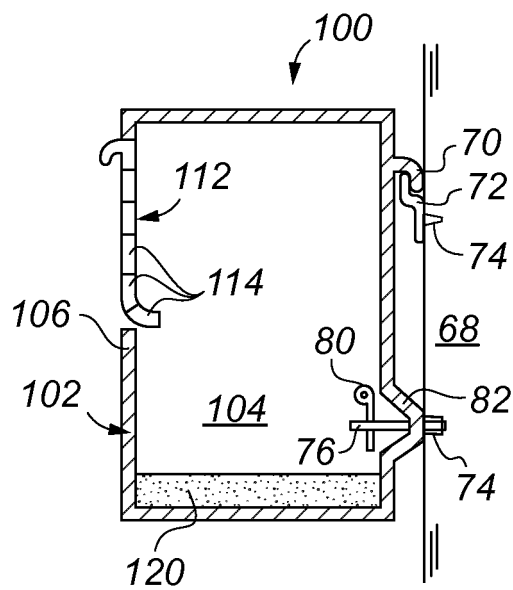


Fig. 5

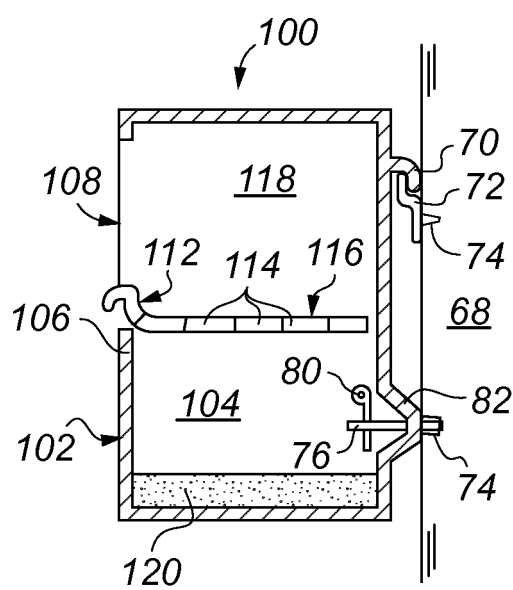


Fig. 6

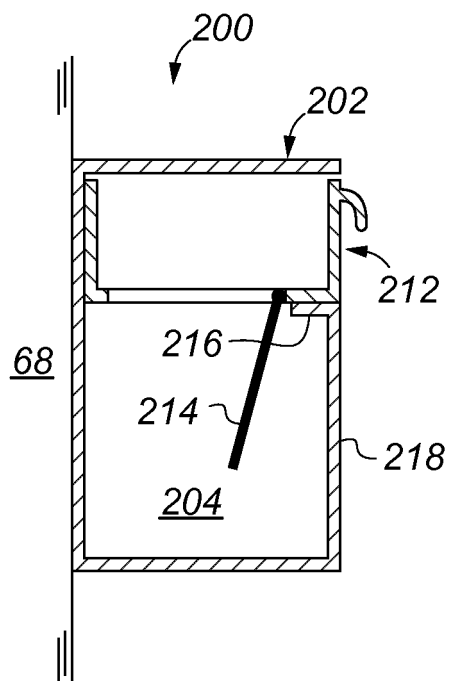


Fig. 7

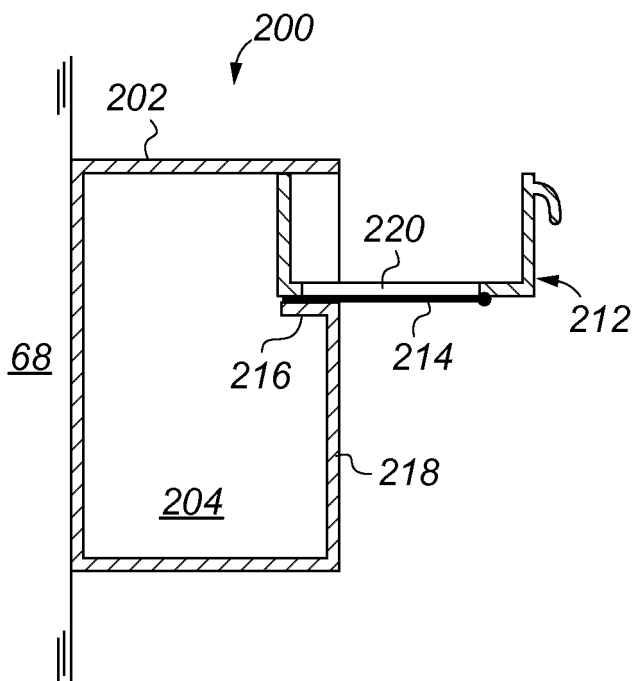


Fig. 8

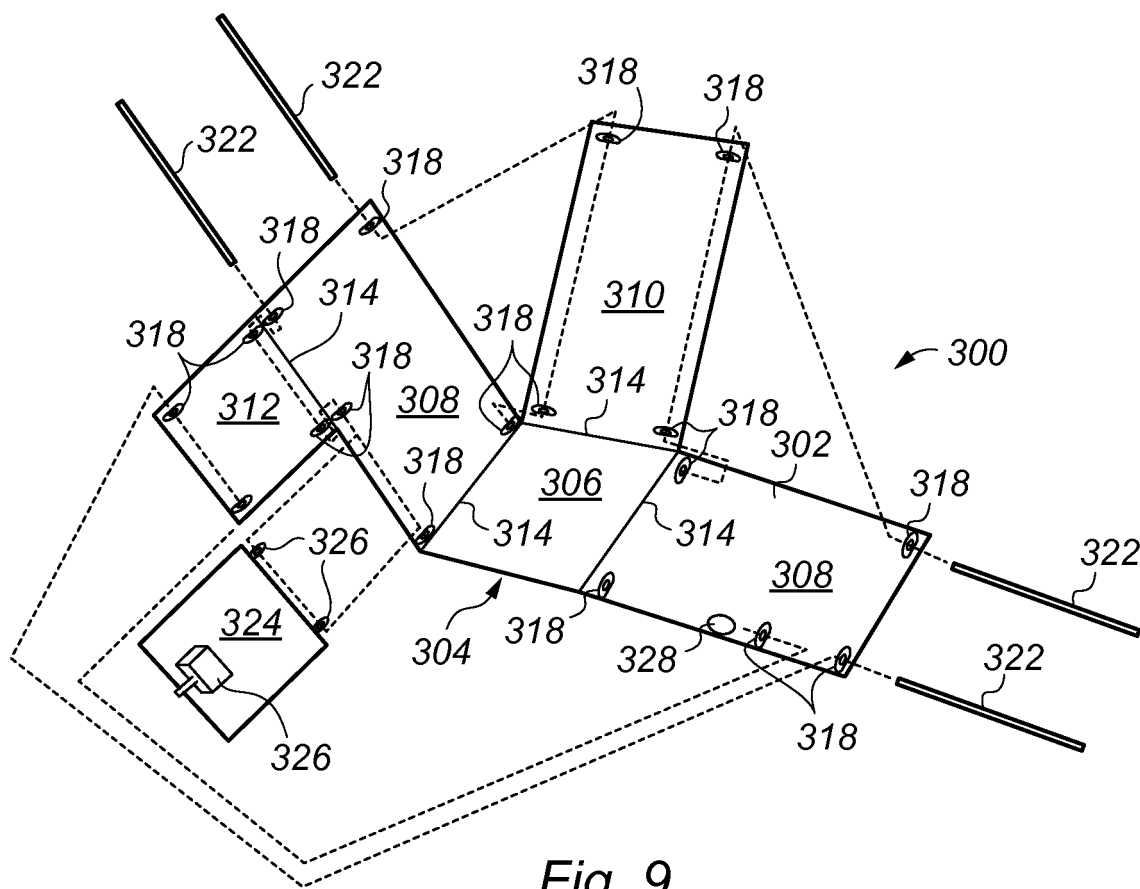


Fig. 9

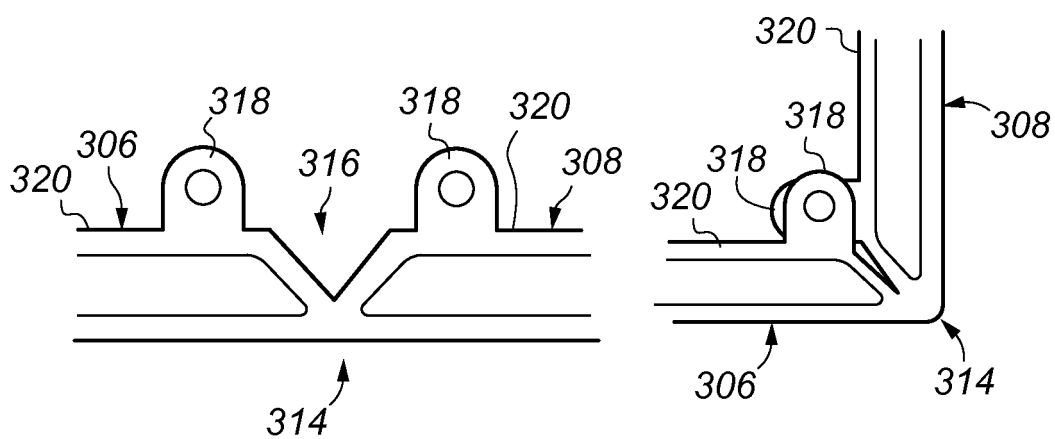


Fig. 10

Fig. 11



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Place of search The Hague		Date of completion of the search 8 January 2014	Examiner Longo dit Operti, T
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EPO FORM 1503 03.82 (P04C01)



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