

(19)



(11)

EP 4 201 493 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention of the grant of the patent:

30.04.2025 Bulletin 2025/18

(51) International Patent Classification (IPC):

A63F 1/06 ^(2006.01) **A63F 1/10** ^(2006.01)

A63F 1/14 ^(2006.01)

(21) Application number: **21217835.4**

(52) Cooperative Patent Classification (CPC):

A63F 1/14; A63F 1/062; A63F 1/10

(22) Date of filing: **27.12.2021**

(54) **PLAYING CARDS MANIPULATION DEVICE**

SPIELKARTENMANIPULATIONSVORRICHTUNG

DISPOSITIF DE MANIPULATION DE CARTES DE JEU

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(43) Date of publication of application:

28.06.2023 Bulletin 2023/26

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Description

Field of the Invention

[0001] The present invention generally relates to a playing cards manipulation device for holding and manipulating a set of playing cards, and its use in casinos and for playing card games.

Background of the Invention

[0002] Card playing games are well known nowadays. Often the game is based upon the unpredictability of the order of cards being dealt or drawn from a randomly ordered deck or set of playing cards, wherein a set of playing cards comprises more than one deck of playing cards being randomly ordered at set level.

[0003] As an example, baccarat is played with a randomly ordered set of 8 decks of playing cards, in total 416 randomly ordered cards. For some games, once cards are drawn from the set, the drawn cards cannot be used anymore as such, since the order of drawing and setting aside the drawn cards can be monitored. Players can turn the cards themselves after the bet resulting in compromised, damaged, or destroyed cards. Reusing the used cards may be open for prediction of order, hence of cheating.

[0004] Seen the high stakes involved, in fact any source of fraudulent playing or behaviour must be avoided. The handling time between production of a set of playing cards and using it at the playing table needs to be as little as possible to avoid to large extent the possibility for fraudulent actions. Manipulation of playing cards themselves is to be restricted as much as possible, as each manipulation of one or more playing cards can be a source for fraudulent activities, like taking away playing cards or replacing the playing card or cards with another card or cards of which the rank and suit is known. US4146229 discloses a playing card manipulation device according to the preamble of the claim.

Summary of the invention

[0005] It is an object of the present invention to provide a device and a method which is able to provide safe manipulation, storage and transportation of playing cards without the need to touch the playing cards themselves. It is a further object of the invention to provide a device that will facilitate a safe and ergonomic loading of played cards from a receptacle or a dedicated location at the game table back into any kind of card holder which is adapted to carry and allow transportation of cards, e.g. a cartridge

[0006] "Safe" means that cards are not touched by any person after a card game was played using said cards. It inhibits access from players to the cards after the game has played.

[0007] According to the first aspect of the present in-

vention, a playing cards manipulation device for holding and/or manipulating a set of playing cards is provided. The playing card manipulation device comprises an open box comprising at least two mutually opposite lateral walls, a bottom wall between the lateral walls and a backwall between the lateral walls, the bottom wall and the backwall being connected along a coupling rib. In longitudinal direction and a sense from the backwall towards the inner side of the box, the outmost point of the side of the lateral walls opposite to the bottom wall extends beyond the outmost point of the side of the lateral walls contacting the bottom wall. According to some embodiments, the box may have a volume of a trapezoidal prism.

[0008] The open box comprises a face side, which is a completely open surface, and may further comprise a top side, which may be a partially or completely open surface. Hence the face side, i.e. the side opposite the backwall, is completely open. The top side, i.e. the side opposite the bottom wall, may be partially or completely open.

[0009] So in longitudinal direction and a sense from the backwall towards the inner side of the box, the outmost point, i.e. the point most remote from the backwall, of the side of the lateral walls opposite to the bottom wall extends beyond the outmost point, i.e. the point most remote from the backwall, of the side of the lateral walls contacting the bottom wall. For the two lateral walls, the two points most remote from the backwall of the side of the lateral walls opposite to the bottom wall may extend over the same length from the backwall. Alternatively, For the two lateral walls, the two points most remote from the backwall of the side of the lateral walls opposite to the bottom wall, the point most remote from the backwall of the side opposite to the bottom wall of one of the lateral walls may extend further from the backwall as compared to the point most remote from the backwall of the side opposite to the bottom wall of the other of the two lateral walls.

[0010] Or in other words, in lateral direction, the lateral walls are delimited by the backwall and an edge defined by the intersection of the lateral walls with a plane perpendicular to said lateral walls such that for both lateral walls, for the point of the side of the lateral wall opposite to the bottom wall, which point is most remote from the bottom wall, the perpendicular projection point to the bottom wall of this point extends further from the coupling rib than the intersection point with said plane of the side of the lateral wall contacting the bottom wall.

[0011] The playing card manipulation device is adapted to store a plurality of playing cards which may enter the box via the face side, i.e. a side opposite to the bottom wall, this side being typically open. The box can be handled and manipulated with no risk for the playing cards falling from the open box when the box is held in its upright position.

[0012] As playing cards being directly manipulated is an origin of possible misconduct or fraudulent activity, it is of importance that playing cards are touched and ma-

manipulated as little as possible. Playing cards having been drawn from e.g. a dealer shoe during playing of a card game, are to be safely stored as soon as the playing cards are to be removed from the table. The played playing cards can be stored and held in the playing cards manipulation device immediately after the playing cards being set aside in the game. Once the game has ended, the played playing cards need to be returned to the backyard or back office of e.g. the casino, optionally being combined with the undealt playing cards, in order to send the complete set of playing cards back to the back office for verification of the completeness of the set of playing cards. The undealt playing cards can be inserted in the playing cards manipulation device, which device can be used to transport the used set of playing cards back to the back office.

[0013] Alternatively, the playing cards are drawn via a dealer shoe from a set of playing cards stored in a closed cartridge. The played playing cards can be stored and held in the playing cards manipulation device immediately after the playing cards have been set aside in the game. Once the game has ended, the cartridge may be opened, i.e. a place in the cartridge for storing the dealt playing cards is opened. The playing cards manipulation device can be used as a tool to transfer the played playing cards into the void space of the cartridge, fit for receiving the played playing cards. The complete set of cards can be sent back to the back office using the cartridge itself.

[0014] The lateral walls have at the side facing away from the backwall an inclined edge, which may be brought in contact with an opened top surface of a cartridge installed in a dealing shoe. The playing cards in the playing cards manipulation device may easily be transferred to the inner void of such cartridge.

[0015] According to some embodiments, the backwall may have a perimeter substantially identical to the perimeter of the playing cards to be held and manipulated by the playing cards manipulation means, such as a rectangular perimeter.

[0016] According to some embodiments, the top side of the open box may be an open surface. The top side of the box is the side opposite to the bottom wall.

[0017] According to some embodiments, the box may have a volume of a trapezoidal prism. According to some embodiments, the box may have a volume of a parallelepiped. Possibly the volume of the parallelepiped is a rectangular parallelepiped volume. According to some embodiments, the box may have a volume of a cuboid.

[0018] According to some embodiments, the bottom wall may extend beyond the point most remote from the backwall, of the sides of the lateral walls contacting the bottom wall.

[0019] According to some embodiments, the bottom wall may have a grip along the rim of the bottom wall being remote from the backwall.

[0020] The grip may be a small lip or protrusion which can be gripped by two or more fingers. This grip may be used to manipulate the box and to carry it from one place

to the other. It may be used to lift the box from a void space in e.g. a card playing table, when the box is housed in such void space in the table.

[0021] The upper rim of the bottom wall, this is the rim which is opposite to the coupling rib or rim of the bottom wall and the backwall, may extend further from the coupling rib, as compared to the intersection point of the side of the lateral wall contacting the bottom wall. Possibly, the upper rim of the bottom wall, this is the rim which is opposite to the coupling rib of the bottom wall and the backwall, coincides with the perpendicular projection point to the bottom wall of the intersection point of the sides of the lateral wall opposite to the bottom wall.

[0022] According to some embodiments, at the plane opposite the bottom wall, two wall sections may be provided, each wall section being connected to the side of the lateral wall along the length of the side of the lateral wall and facing towards the opposite lateral wall.

[0023] The two wall sections may provide an open strip or zone in the lateral direction of the volume along the top side of the truncated parallelepiped volume. These two sections provide a hindrance and avoiding cards to slip out of the volume of the playing cards manipulation device in a direction perpendicularly away from the bottom wall. The playing cards may not fall out of the playing cards manipulation device in a direction perpendicular to the bottom wall.

[0024] According to some embodiments, the backwall may have a cut out along a part of the side remote from the bottom wall.

[0025] This cut out allows the card in the volume being closest to the bottom wall to be pushed in lateral direction towards the front open side of the volume. This cut out also allows to manipulate and carry the playing card manipulation device to be handled with the thumb of the person handling the device being located in the cut out. Hence the cut out facilitates the holding of the device by providing a place for the thumb of the person holding the device.

[0026] According to some embodiments, the walls may be provided from transparent polymer. The playing cards are visible from all sides at any time, which gives more clarity to the persons involved in the manipulation of the playing card manipulation device, regarding the content and movements of the playing cards during manipulation of the playing card manipulation device.

[0027] According to some embodiments, the walls may be provided from opaque or even non-transparent polymer.

[0028] According to some embodiments, the playing cards manipulation device may have a holding means to hold a seal. The playing cards to be held within the device may form part of a previously sealed set of playing cards, provided in a sealed playing card cartridge or a vault. The playing cards are deposited in a dealing shoe to be able to draw playing cards from the set of playing cards one by one. When the set of playing cards is to be inserted in the dealer shoe, the cartridge or vault is unsealed. The

playing cards manipulation device may have a special, dedicated place to store the broken seal from the cartridge of vault. As such the broken seal is prevented from getting lost during playing of the card game.

[0029] According to some embodiments, the playing cards manipulation device may have a holding means to hold the cap of a cartridge, which cartridge may e.g. comprises playing cards. Cartridges are foreseen to hold sets of playing cards during a game being played. Such cartridges may be inserted, e.g. clicked, in a dealer shoe by means of which the cards are drawn out of the cartridge. Before the game starts, and after the game has ended, a cap is provided to the cartridge to avoid cards being drawn from the cartridge. During the game, this cap is removed from the cartridge, e.g. prior to inserting the cartridge in the dealer shoe. To properly store this cap, the playing cards manipulation device may comprise a holding means to hold this cap being removed from the cartridge.

[0030] According to a first particular facet of the first aspect of the invention, the playing cards manipulation device further may comprise a container for holding the open box, said open box fits completely into the container.

[0031] Such container can be used as a receptacle for the box. The container can be used to store the box temporarily while loading or unloading the box with playing cards. The container can temporarily be stored in a void space in e.g. a card playing table. The boxes may be taken in and out of the container when needed. If present, the grip may be used to insert or pull out the box from the container.

[0032] According to some embodiments, the container may have lid covering an insert opening of the container delimited by container walls.

[0033] This opening can be used to insert playing cards via this opening in the box.

[0034] According to some embodiments, between the lid and at least one of the container walls, a slit may be provided.

[0035] The slit is large enough to slip in a playing card into the container. As such, playing cards can be slid into the container, hence into the box without opening the lid.

[0036] According to some embodiments, the face wall of the open box may be an open surface, the face wall of the open box faces the lid when the open box is inserted in the container.

[0037] According to some embodiments, the inner surface of the container may fit the outer surface of the open box. When playing cards are slid into the container, the playing cards will fall into the open box via the open face wall.

[0038] In case the bottom wall of the open box has a grip along the rim of the bottom wall being remote from the backwall, this grip can be used to pull the open box out of the container when the lid is opened.

[0039] According to some embodiments, the container may have a holding means to hold a seal. According to

some embodiments, the container may have a lid being rotatably fixed to the container at a first side of the container, the holding means for holding the seal is part of the lid, e.g. being present at the upper side of the lid, and the cap is held at the side of the lid away from said first side.

[0040] According to some embodiments, the container may have a holding means to hold the cap of a cartridge.

[0041] According to some embodiments, the container may have a lid being rotatably fixed to the container at a first side of the container, the holding means for holding the cap is part of the lid, e.g. being present at the upper side of the lid, and the cap is held at the side of the lid away from said first side.

[0042] As such, a location to store the cap during the playing of a card game is provided.

[0043] According to a second particular facet of the first aspect of the invention, the playing cards manipulation device further may comprise a cover to cover at least one of the face side being opposite to the backwall and the top side being the opposite to the bottom wall. The face side and/or the top side of the open box may be open, i.e. uncovered. The cover may be used to temporarily close these open sides or faces of the open box during transportation of the playing cards manipulation device, and avoids card being held by the open box to fall out of the open box. According to some embodiments, the cover may cover the face side being opposite to the backwall and the top side being the opposite to the bottom wall.

[0044] According to some embodiments, the cover may have a hooked shape, also referred to as an L shape, e.g. an L-shaped plate, such as an L-shaped polymeric plate. According to some embodiments, the short side of the L-shape may cover the face side of the open box. According to some embodiments, the long side of the L-shape may cover the top side of the open box.

[0045] According to some embodiments, in the plane opposite the bottom wall, two wall sections may be provided. For each lateral wall, one wall section is connected to the side of the lateral wall along the length of the side of the lateral wall, the edge of the wall section being oriented away from the opposite lateral wall. The cover may comprise one or more sliding means for receiving one of these wall sections during mounting the cover to the open box. The cover may slide from the face side of the open box downwards to the back wall, while the sliding means fit over the wall sections. Possibly the sliding means may exercise a force to the wall sections, e.g. a clamping force, necessitating a minimum force to be applied to open or remove the cover from the open box by sliding the cover in opposite direction.

[0046] According to some embodiments, the playing cards manipulation device may comprise a coupling means to releasably couple the open box to the cover. Such coupling means may be a hook-and-loop coupling means, one or more sets of magnets, or a physical coupling means of male and female parts, where a male part connects with a female part, e.g. by pushing the male to the female part and e.g. clicking one into the other. This

coupling means causes the two parts, i.e. the cover and the open box, to form temporarily a partially or completely closed volume from which cards being present in the open box, can leave only on purpose, or even cannot leave while keeping the coupling closed.

[0047] According to some embodiments, at the face side of the open box opposite to the backwall, an opening or slit may be provided between the open box and the cover when the open box and the cover are coupled. The playing cards manipulation device in coupled state may be inserted in an appropriate opening in a playing table, the face side facing upwards and extending above the playing table surface. Cards to be removed from the table may be provided into the playing cards manipulation device through this slit or opening. The cards fall into the open box downwards to the backwall. The slit, which preferably has at least the width of the short or long side of the playing card, may be provided by dimensioning one of the lateral sides such that it does not touch the side of the cover closing the face side of the open box, e.g. the short side of the L-shaped cover. As an example, for the two points most remote from the backwall of the side of the two lateral walls opposite to the bottom wall, the point most remote from the backwall of the side opposite to the bottom wall of one of the lateral walls may extend less far from the backwall as compared to the point most remote from the backwall of the side opposite to the bottom wall of the other of the two lateral walls. As such, between the lateral wall with the point most remote from the backwall of the side opposite to the bottom wall of one of the lateral walls, which point is less far remote, a slit may be provided between this lateral wall and the short side of the L-shaped cover. Alternatively, slits may be provided along both lateral walls. Also as an alternative, the bottom wall of the open box is so dimensioned that it does not touch the cover when the open box and the cover are coupled to each other. as such a slit may be provided between the cover and the bottom wall of the open box.

[0048] The playing cards manipulation device, with connected open box and cover, may be positioned into an opening in the playing table, such that the slit is flush with the surface of the playing table. Played cards can easily be slipped into the slit, after which this card is and remains stored in the void of the open box.

[0049] According to some embodiments, the playing cards manipulation device may comprise a cover, the playing cards manipulation device comprising a holding means to hold a seal, the holding means to hold a seal being part of the cover.

[0050] According to some embodiments, the playing cards manipulation device may comprise a cover, the playing cards manipulation device comprising a holding means to hold the cap of a cartridge, the holding means to hold the cap of a cartridge being part of the cover.

[0051] According to some embodiments, the playing cards manipulation device may comprise a cover having an L-shape, the playing cards manipulation device comprises a holding means to hold a seal and/or a holding

means to hold the cover of a dealer shoe, holding means to hold a seal and/or a holding means to hold the cover of a dealer shoe being part of the short side of the L-shape.

[0052] Hence according to some embodiments, the cover may have a holding means to hold the cover of a dealer shoe. As such, a location to store the cover of the dealer shoe during the playing of a card game is provided.

[0053] According to some embodiments, the cover may have a holding means to hold a seal. As such, a location to store the seal during the playing of a card game is provided.

[0054] According to some embodiments, the cover and the open box may be provided from non-transparent polymer.

[0055] The playing cards manipulation device according to the first aspect of the invention can be used to store the played playing cards during a card game. Once the card game is finished, the playing cards manipulation device contains the played cards. It can be used to return the played playing cards back to the back office of the casino, or it can be used to insert the played playing cards back into a void place in the cartridge from which the playing cards are drawn, typically using a dealer shoe.

[0056] Hence it avoids that playing cards, even played playing cards, are touched by persons, except for the dealer during playing of the card game. Hence it avoids manipulations to the playing cards themselves, which manipulations can be a source of fraudulent activity, like taking away of playing cards to be able to cheat in another card game with this stolen playing card.

[0057] According to a second aspect, a playing cards manipulation device according to the first aspect of the invention is used to store playing cards, e.g. dealt playing cards from a set of playing cards, and this e.g. during the period a card play is played. Hence the use of a playing cards manipulation device according to the first aspect of the invention to store playing cards in a casino, preferably at a casino table is provided. The playing cards manipulation device according to the first aspect of the invention is used to transport playing cards, e.g. dealt playing cards from a set of playing cards, e.g. from a playing table in a casino to the back office of the casino.

Brief Description of the Drawings

[0058]

Fig. 1 illustrates schematically a playing cards manipulation device according to the first aspect of the invention, in which the container of the device is in closed position.

Fig. 2 illustrates schematically the same playing cards manipulation device as in figure 1, in which the container of the device is in opened position.

Fig. 3 illustrates schematically the open box of the playing cards manipulation device of figure 1, posi-

tioned in a cartridge, the cartridge itself being coupled to a card dealer shoe.

Fig. 4 is a detail of figure 3.

Fig. 5, 6 and 7 illustrate schematically another playing cards manipulation device according to the first aspect of the invention.

Fig. 8 illustrates schematically the open box of the playing cards manipulation device of figures 5 to 7, positioned in a cartridge, the cartridge itself being coupled to a card dealer shoe.

[0059] In the figures, the same references refer to the same or a similar element of the device or apparatus.

Detailed Description of Embodiment(s)

[0060] A playing cards manipulation device 10 for holding and/or manipulating a set of playing cards is shown in figures 1 and 2. The playing card manipulation device comprises a container 20 for holding an open box 100. The container 20 and the open box 100 are both provided from transparent polymer material. The open box 100 fits completely into the container as shown in figure 1. The container 20 has lid 21 covering an insert opening 22 of the container delimited by container walls 23. Between the lid 21 and at least one of the container walls 23, a slit 24 is provided. The container may be inserted in an opening in a casino table, which openings perimeter nicely fits with the rim of the container walls 23. As such, the slit 24 may be located right above the casino table surface. When the playing cards manipulation device 10 is located in the casino table, cards which need to be placed in the playing cards manipulation device 10, can be inserted in the slit 24, thereby falling into the open box 100 of the playing cards manipulation device 10.

[0061] The face side 101 of the open box 100 is an open surface, the face wall of the open box 100 faces the lid 21 when the open box 100 is inserted in the container 20. The face side of the open box 100 is the side opposite to the backwall 102.

[0062] The inner surface 25 of the container 20 fits the outer surface 103 of the open box 100.

[0063] The container 20 has a holding means 26 to hold a seal and a holding means to hold the cap 30 of a cartridge. More particular, the lid 21 is rotatably fixed to the container 20 at a first side 27 of the container 20, the holding means for holding the cap 30 is present at the upper side 28 of the lid 21, at the side 29 of the lid 21 away from this first side 27. The lid can be detachably connected to the side of the container by a detachable coupling means comprising a male 32 and a female 31 part.

[0064] The open box 100 comprising at least two mutually opposite lateral walls 110 and 111, a bottom wall 112 between the lateral walls and a backwall 102 be-

tween the lateral walls. The bottom wall 112 and the backwall 102 are connected along a coupling rib 113. The open box 100 has a volume of a trapezoidal prism, more precisely a cuboid.

[0065] In longitudinal direction 120 and a sense from the backwall 102 towards the inner side of the open box 100, the outmost point 130 of the side of the lateral walls 110 and 111 opposite to the bottom wall 112 extends beyond the outmost point 140 of the side of the lateral walls contacting the bottom wall 112. One of the lateral walls 111 has a length in lateral direction 120 which is shorter as compared to the length of the other lateral walls 110. The sides of the container 20 matching the shortest lateral wall 111 and the top side of the open box 100 are shorter as compared to the other walls in lateral direction. When the lid 21 is in closed position, a slit is provided between the lid 21 and these two shorter walls of the container. This combined with the shorter lateral wall 111 provides the slit 24 allowing cards to be slipped through the slit along the lateral wall 111 and the top side of the open box, into the void of the open box.

[0066] Along the rim of the bottom wall 112 being remote from the backwall 112 the bottom wall 102 has a grip 115, e.g. a lip. When the open box 100 is to be taken out of the container 20, this grip 115 can be used to provide grip to the open box 100. The person taking out the open box 100 can pull the open box from the container 20.

[0067] At the plane opposite the bottom wall 112, two wall sections 150 and 151 are provided, each wall section 150 and 151 being connected to the side of the lateral wall 110 and 111 along the length of the side of the lateral wall 110 and 111 and facing towards the opposite lateral wall 110 and 111. Playing cards dropped in the open box 100 are prevented to fall out of the open box in a direction away from the bottom wall 112 during manipulation of the open box 100.

[0068] The backwall 102 has a cut out 116 along a part of the side remote from the bottom wall 112. This cut out may serve to allow a thumb of a person carrying the open box, to be positioned in, thereby facilitating the carrying of the open box 100.

[0069] This open box, positioned in a container, on its turn positioned in an opening in the playing table, can be used to collect dealt cards from the game during the game. When the game is ended, the dealt cards preferably are reunited with the undealt cards from the set of playing cards, which are held by a cartridge. As shown in detail in figures 3 and 4, the open box 100, when taken out of the container 20 by e.g. opening the containers lid 21 and pulling out the open box 100 by means of the lip 115, can be united with the open or at least partially opened upper surface 201 of the cartridge 200.

[0070] Due to its shape, the open box has two sloping sides 160 and 161, one on each side surface 110 and 111. By introducing part of the bottom side 112 inside the volume of the cartridge 200, until the sloping sides 160 and 161 meet the upstanding sides 202 and 203 of the

cartridge 200, the playing cards held in the open box can easily slide into the opened volume of the cartridge 200, and this without the playing cards being present in the open box, to be taken out or significantly being manipulated. The cards just need to be pushed inwards the open volume of the cartridge, if they don't slide by themselves. To precisely orient the open box 100 and the cartridge 200, the cartridge may have in its lower or bottom surface 204 a cut out 205, in which the grip 115, being a lip, snugly fits in.

[0071] An alternative playing cards manipulation device 1010 for holding and/or manipulating a set of playing cards is shown in figures 5 to 7. Figure 5 shows schematically the open box 1000 and the cover 1200 in disassociated position, while figure 6 shows the open box 1000 and the cover 1200 when being closed. Figure 7 shows the open box 1000 and the cover 1200 in closed state.

[0072] The playing card manipulation device comprises an open box 1000. The open box 1000 may be provided from transparent polymer material or from untransparent, e.g. opaque or black polymer.

[0073] The face side 1101 of the open box 1000 is an open surface. The face side of the open box 1000 is the wall opposite to the backwall 1102.

[0074] The open box 1000 comprising at least two mutually opposite lateral walls 1110 and 1111, a bottom wall 1112 between the lateral walls and a backwall 1102 between the lateral walls. The bottom wall 1112 and the backwall 1102 are connected along a coupling rib 1113. The open box 1000 has a volume of a trapezoidal prism, more precisely a cuboid.

[0075] In longitudinal direction 1120 and a sense from the backwall 1102 towards the inner side of the open box 1000, the outmost point 1130 of the side of the lateral walls 1110 and 1111 opposite to the bottom wall 1112 extends beyond the outmost point 1140 of the side of the lateral walls contacting the bottom wall 1112.

[0076] At the plane opposite the bottom wall 1112, two wall sections 1150 and 1151 are provided, each wall section 1150 and 1151 being connected to the side of the lateral wall 1110 and 1111 along the length of the side of the lateral wall 1110 and 1111 and facing away from the opposite lateral wall 1110 and 1111.

[0077] The backwall 1102 has a cut out 1116 along a part of the side remote from the bottom wall 1112. This cut out may serve to allow a thumb of a person carrying the open box, to be positioned in, thereby facilitating the carrying of the open box 1000.

[0078] The playing cards manipulation device 1010 further comprises a cover 1200, being an L-shaped polymer plate, having a long side 1201 and a short side 1202. The cover 1200 may be provided from transparent polymer material or from untransparent, e.g. opaque or black polymer.

[0079] Along the two long sides 1201 of the cover 1200, a series of sliding means 1204 are provided, which are adapted to slide over the wall sections 1150 and 1151 of

the open box 1100, when the cover 1200 is mount to the open box 1100 by sliding the cover over the face side of the open box 1100 in longitudinal direction 1120. The sliding means 1204 may slightly clamp to the wall sections 1150 and 1151 such that a minimum force is needed to move the cover versus the open box, e.g. for opening or closing the open box with the cover.

[0080] The cover 1200 has a holding means 1027 to hold a seal 301 and a holding means 1026 to hold the cap 300 of a cartridge. More particular, the holding means 1026 for holding the cap 330 and the holding means 1027 to hold a seal 301 are present at the outer surface 1208 of the cover, which surface is delimited by the short sides 1202 of the cover 1200.

[0081] As best visible in figure 7, one of the lateral walls 1110 has a length in lateral direction 1120 which is shorter as compared to the length of the other lateral walls 1111. When the cover and the open box are associated, a slit 1300 is provided between the cover 1200 and the edge of the shortest lateral wall 1110, while the top edges of the other lateral wall 1111 and the bottom wall 1112 touch the covers 1200 inner side. The combination of the open box 1100 and cover 1200, in closed state, may be inserted in an opening in a casino table, which openings perimeter nicely fits with the circumference of combination of the open box 1100 and cover 1200. The depth of the opening in the casino table is preferably chosen such that at least part of the slit 1300 extends above the casino tables surface. Cards which need to be placed in the playing cards manipulation device 1010, can be inserted in the slit 1300, thereby falling into the open box 1000 of the playing cards manipulation device 1010.

[0082] This playing cards manipulation device 1010 thus can be used to collect dealt cards from the game during the game. When the game is ended, the dealt cards preferably are reunited with the undealt cards from the set of playing cards, which are held by a cartridge. As shown in detail in figure 8, the open box 1000, with a removed cover 1200, can be united with the open or at least partially opened upper surface 201 of the cartridge 200. Due to its shape, the open box 1000 has two sloping sides 1160 and 1161, one on each lateral walls 1110 and 1111. By introducing part of the bottom side 1112 inside the volume of the cartridge 200, until the sloping sides 1160 and 1161 meet the upstanding sides 202 and 203 of the cartridge 200, the playing cards held in the open box can easily slide into the opened volume of the cartridge 200, and this without the playing cards being present in the open box, to be taken out or significantly being manipulated. The cards just need to be pushed inwards the open volume of the cartridge, if they don't slide by themselves.

[0083] Although the present invention has been illustrated by reference to specific embodiments, it will be apparent to those skilled in the art that the invention is not limited to the details of the foregoing illustrative embodiments, and that the present invention may be embodied with various changes and modifications without depart-

ing from the scope thereof. The present embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein. In other words, it is contemplated to cover any and all modifications, variations or equivalents that fall within the scope of the basic underlying principles and whose essential attributes are claimed in this patent application. It will furthermore be understood by the reader of this patent application that the words "comprising" or "comprise" do not exclude other elements or steps, that the words "a" or "an" do not exclude a plurality, and that a single element may fulfil the functions of several means recited in the claims. Any reference signs in the claims shall not be construed as limiting the respective claims concerned. The terms "first", "second", "third", "a", "b", "c", and the like, when used in the description or in the claims are introduced to distinguish between similar elements or steps and are not necessarily describing a sequential or chronological order. Similarly, the terms "top", "bottom", "over", "under", and the like are introduced for descriptive purposes and not necessarily to denote relative positions. It is to be understood that the terms so used are interchangeable under appropriate circumstances and embodiments of the invention are capable of operating according to the present invention in other sequences, or in orientations different from the one(s) described or illustrated above.

Claims

1. A playing cards manipulation device (10) for holding and/or manipulating a set of playing cards,

wherein the playing cards manipulation device comprises an open box (100) comprising at least two mutually opposite lateral walls (110, 111), a bottom wall (112) between the lateral walls, a backwall (102) between the lateral walls, the bottom wall and the backwall being connected along a coupling rib (113), a top side being the side opposite the bottom wall, and a face side being opposite the backwall, and wherein, in longitudinal direction and a sense from the backwall towards the inner side of the box, the side of the lateral walls opposite to the bottom wall extends to an outmost remote point (130) from the backwall beyond the outmost remote point (140) from the backwall of the side of the lateral walls contacting the bottom wall, thereby providing inclined edges to said lateral walls, **characterised in that** the face side of the open box being the side opposite the backwall, is completely open, such that, in

use, when said inclined edges are brought in contact with an opened top surface of a cartridge, the playing cards in the playing cards manipulation device can be transferred to the inner void of this cartridge (200).

2. A playing cards manipulation device according to claim 1, wherein the top side, being the side opposite the bottom wall, is completely open.
3. A playing cards manipulation device according to any one of the claims 1 to 2, wherein the box has a volume of a trapezoidal prism, preferably a cuboid.
4. A playing cards manipulation device according to any one of the claims 1 to 3, wherein said playing cards manipulation device has a holding means to hold a seal (301).
5. A playing cards manipulation device according to any one of the claims 1 to 4, wherein said playing cards manipulation device has a holding means to hold the cap (300) of a cartridge (200).
6. A playing cards manipulation device according to any one of the claims 1 to 5, wherein the backwall has a cut out (116) along a part of the side remote from the bottom wall.
7. A playing cards manipulation device according to any one of the claims 1 to 6, wherein the playing cards manipulation device further comprises a cover (1200) to cover at least one of the face side being the side opposite to the backwall and the top side being the side opposite to the bottom wall.
8. A playing cards manipulation device according to claim 7, wherein the cover covers the face side being opposite to the backwall and the top side being the opposite to the bottom wall.
9. A playing cards manipulation device according to any one of the claims 7 to 8, wherein the cover has an L shape.
10. A playing cards manipulation device according to claim 9, wherein the short side of the L-shape covers the face side of the open box.
11. A playing cards manipulation device according to any one of the claims 9 to 10, wherein the long side of the L-shape covers the top side of the open box.
12. A playing cards manipulation device according to any one of the claims 7 to 11, wherein the playing cards manipulation device comprises a coupling means to releasably couple the open box to the cover.

13. A playing cards manipulation device according to claim 12, wherein at the face side of the open box opposite to the backwall, a slit is provided between the open box and the cover when the open box and the cover are coupled.
14. A playing cards manipulation device according to any one of the claims 7 to 13, wherein the cover and the open box are provided from non-transparent polymer.
15. The use of a playing cards manipulation device according to any one of the claims 1 to 14 to store playing cards in a casino, preferably at a casino table.

Patentansprüche

1. Spielkartenmanipulationsvorrichtung (10) zum Halten und/oder Manipulieren eines Satzes von Spielkarten,
- wobei die Spielkartenmanipulationsvorrichtung einen offenen Kasten (100) umfasst, der zumindest zwei einander gegenüberliegende Seitenwände (110, 111), eine Bodenwand (112) zwischen den Seitenwänden, eine Rückwand (102) zwischen den Seitenwänden umfasst, wobei die Bodenwand und die Rückwand entlang einer Kopplungsrippe (113) verbunden sind, wobei eine Oberseite die Seite gegenüber der Bodenwand ist und eine Stirnseite gegenüber der Rückwand ist, und wobei sich in Längsrichtung und einer Hinsicht von der Rückwand zu der Innenseite des Kastens die Seite der Seitenwände gegenüber der Bodenwand zu einem äußersten entfernten Punkt (130) von der Rückwand über den äußersten entfernten Punkt (140) von der Rückwand der Seite der Seitenwände die Bodenwand kontaktierend erstreckt, wodurch schräge Kanten zu den Seitenwänden bereitgestellt sind, **dadurch gekennzeichnet, dass** die Stirnseite des offenen Kastens, welche die Seite gegenüber der Rückwand ist, vollständig offen ist, sodass in Verwendung, wenn die schrägen Kanten in Kontakt mit einer geöffneten oberen Oberfläche einer Patrone gebracht sind, die Spielkarten in der Spielkartenmanipulationsvorrichtung zu dem Innenhohlraum dieser Patrone (200) übertragen werden können.
2. Spielkartenmanipulationsvorrichtung nach Anspruch 1, wobei die Oberseite, welche die Seite gegenüber der Bodenwand ist, vollständig offen ist.
3. Spielkartenmanipulationsvorrichtung nach einem

der Ansprüche 1 bis 2, wobei der Kasten ein Volumen eines Trapezprismas, bevorzugt eines Quaders aufweist.

4. Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 1 bis 3, wobei die Spielkartenmanipulationsvorrichtung ein Haltemittel aufweist, um einen Verschluss (301) zu halten.
5. Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 1 bis 4, wobei die Spielkartenmanipulationsvorrichtung ein Haltemittel aufweist, um die Kappe (300) einer Patrone (200) zu halten.
6. Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 1 bis 5, wobei die Rückwand einen Ausschnitt (116) entlang eines Teils der Seite entfernt von der Bodenwand aufweist.
7. Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 1 bis 6, wobei die Spielkartenmanipulationsvorrichtung ferner eine Abdeckung (1200) umfasst, um zumindest eine von der Stirnseite, welche die Seite gegenüber der Rückwand ist, und der Oberseite, welche die Seite gegenüber der Bodenwand ist, abzudecken.
8. Spielkartenmanipulationsvorrichtung nach Anspruch 7, wobei die Abdeckung die Vorderseite, die gegenüber der Rückwand ist, und die Oberseite, die das Gegenüber der Bodenwand ist, abdeckt.
9. Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 7 bis 8, wobei die Abdeckung eine L-Form aufweist.
10. Spielkartenmanipulationsvorrichtung nach Anspruch 9, wobei die kurze Seite der L-Form die Stirnseite des offenen Kastens abdeckt.
11. Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 9 bis 10, wobei die lange Seite der L-Form die Oberseite des offenen Kastens abdeckt.
12. Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 7 bis 11, wobei die Spielkartenmanipulationsvorrichtung ein Kopplungsmittel umfasst, um den offenen Kasten lösbar an die Abdeckung zu koppeln.
13. Spielkartenmanipulationsvorrichtung nach Anspruch 12, wobei an der Stirnseite des offenen Kastens gegenüber der Rückwand ein Schlitz zwischen dem offenen Kasten und der Abdeckung bereitgestellt ist, wenn der offene Kasten und die Abdeckung gekoppelt sind.
14. Spielkartenmanipulationsvorrichtung nach einem

der Ansprüche 7 bis 13, wobei die Abdeckung und der offene Kasten aus nichttransparentem Polymer bereitgestellt sind.

15. Verwendung einer Spielkartenmanipulationsvorrichtung nach einem der Ansprüche 1 bis 14 zum Aufbewahren von Spielkarten in einem Casino, bevorzugt an einem Casino-Tisch.

Revendications

1. Dispositif de manipulation de cartes de jeu (10) destiné à maintenir et/ou à manipuler un ensemble de cartes de jeu,

dans lequel le dispositif de manipulation de cartes de jeu comprend une boîte ouverte (100) comprenant au moins deux parois latérales mutuellement opposées (110, 111), une paroi inférieure (112) entre les parois latérales, une paroi arrière (102) entre les parois latérales, la paroi inférieure et la paroi arrière étant reliées le long d'une nervure de couplage (113), un côté supérieur étant le côté opposé à la paroi inférieure et un côté avant étant opposé à la paroi arrière, et dans lequel, dans une direction longitudinale et dans un sens allant de la paroi arrière vers le côté interne de la boîte, le côté des parois latérales opposé à la paroi inférieure s'étend jusqu'à un point éloigné le plus à l'extérieur (130) à partir de la paroi arrière au-delà du point éloigné le plus à l'extérieur (140) à partir de la paroi arrière du côté des parois latérales en contact avec la paroi inférieure, fournissant ainsi des bords inclinés auxdites parois latérales, **caractérisé en ce que** le côté avant de la boîte ouverte, étant le côté opposé à la paroi arrière, est complètement ouvert, de sorte que, lors de l'utilisation, lorsque lesdits bords inclinés sont mis en contact avec une surface supérieure ouverte d'une cartouche, les cartes de jeu dans le dispositif de manipulation de cartes de jeu peuvent être transférées dans le vide interne de cette cartouche (200).

2. Dispositif de manipulation de cartes de jeu selon la revendication 1, dans lequel le côté supérieur, étant le côté opposé à la paroi inférieure, est complètement ouvert.
3. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 1 à 2, dans lequel la boîte comporte un volume d'un prisme trapézoïdal, de préférence un parallélépipède.
4. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 1 à 3, dans

lequel le dispositif de manipulation de cartes de jeu comporte un moyen de maintien pour maintenir un sceau (301).

5. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 1 à 4, dans lequel le dispositif de manipulation de cartes de jeu comporte un moyen de maintien pour maintenir le capuchon (300) d'une cartouche (200).
6. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 1 à 5, dans lequel la paroi arrière comporte une découpe (116) le long d'une partie du côté éloigné de la paroi inférieure.
7. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 1 à 6, dans lequel le dispositif de manipulation de cartes de jeu comprend en outre un couvercle (1200) pour couvrir au moins l'un du côté face, étant le côté opposé à la paroi arrière, et du côté supérieur, étant le côté opposé à la paroi inférieure.
8. Dispositif de manipulation de cartes de jeu selon la revendication 7, dans lequel le couvercle couvre le côté face, étant opposé à la paroi arrière, et le côté supérieur, étant l'opposé à la paroi inférieure.
9. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 7 à 8, dans lequel le couvercle comporte une forme en L.
10. Dispositif de manipulation de cartes de jeu selon la revendication 9, dans lequel le côté court de la forme en L couvre le côté face de la boîte ouverte.
11. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 9 à 10, dans lequel le côté long de la forme en L couvre le côté supérieur de la boîte ouverte.
12. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 7 à 11, dans lequel le dispositif de manipulation de cartes de jeu comprend un moyen de couplage pour coupler de manière libérable la boîte ouverte au couvercle.
13. Dispositif de manipulation de cartes de jeu selon la revendication 12, dans lequel, au niveau du côté face de la boîte ouverte opposé à la paroi arrière, une fente est fournie entre la boîte ouverte et le couvercle lorsque la boîte ouverte et le couvercle sont couplés.
14. Dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 7 à 13, dans lequel le couvercle et la boîte ouverte sont fournis à

partir d'un polymère non transparent.

- 15.** Utilisation d'un dispositif de manipulation de cartes de jeu selon l'une quelconque des revendications 1 à 14 pour stocker des cartes de jeu dans un casino, de préférence à une table de casino. 5

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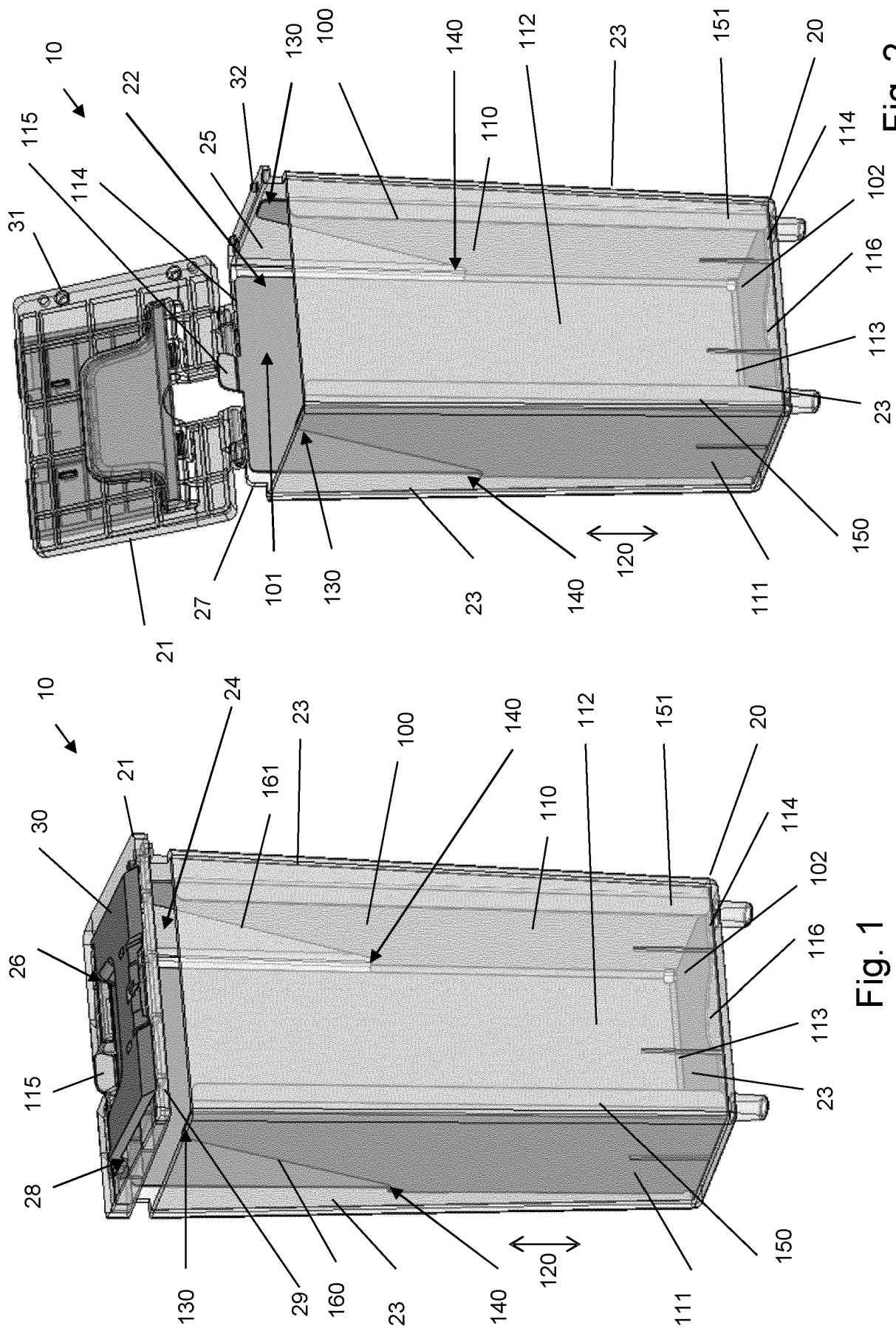


Fig. 2

Fig. 1

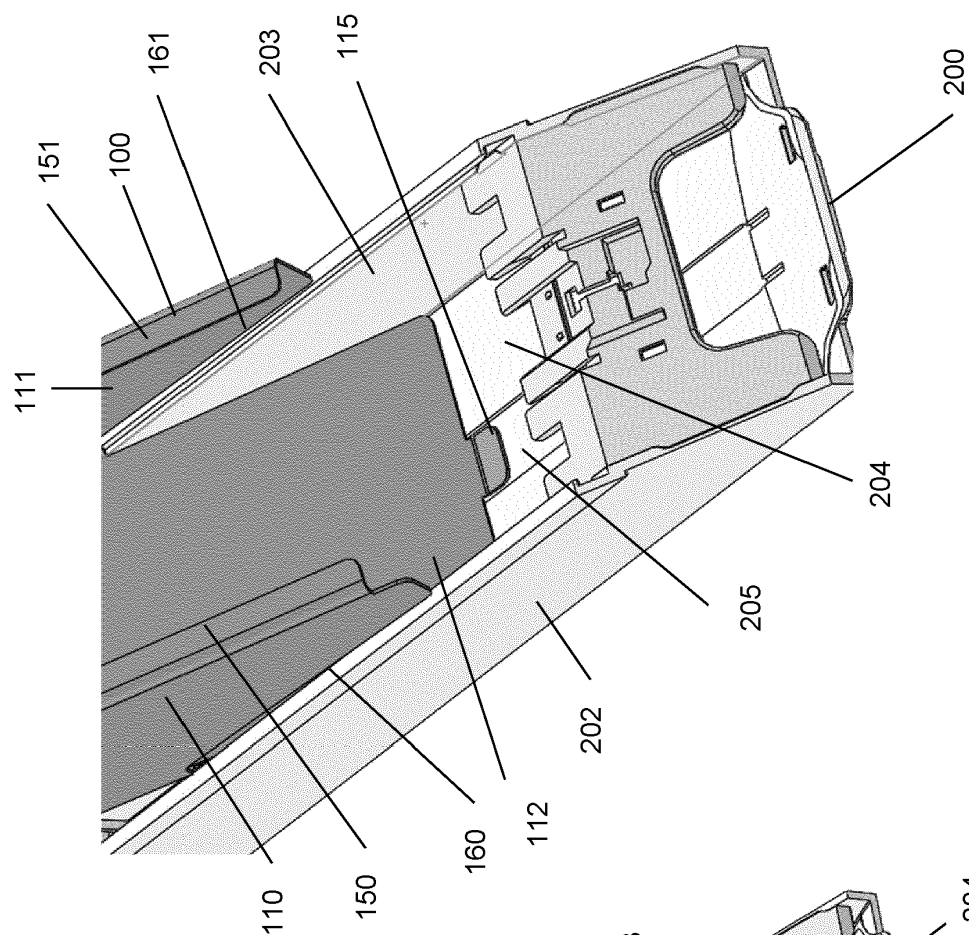


Fig. 4

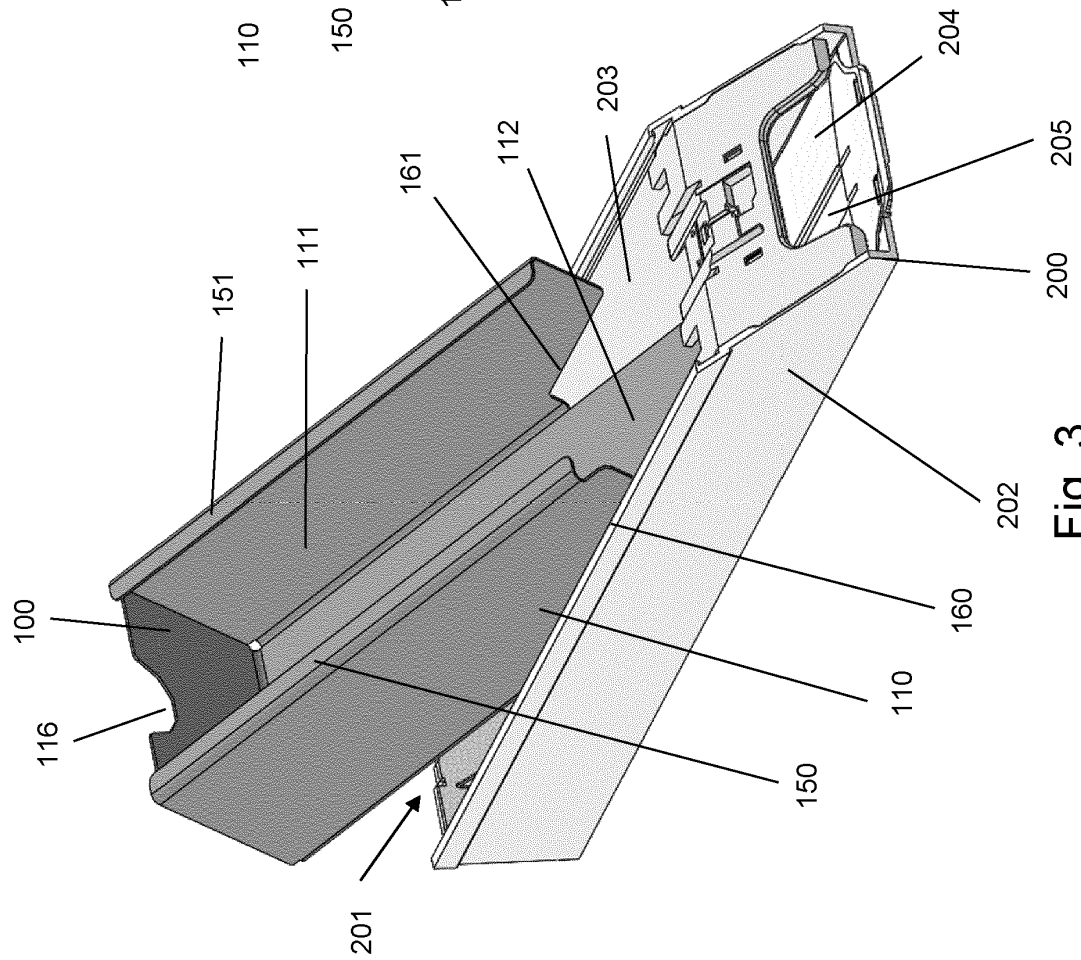


Fig. 3

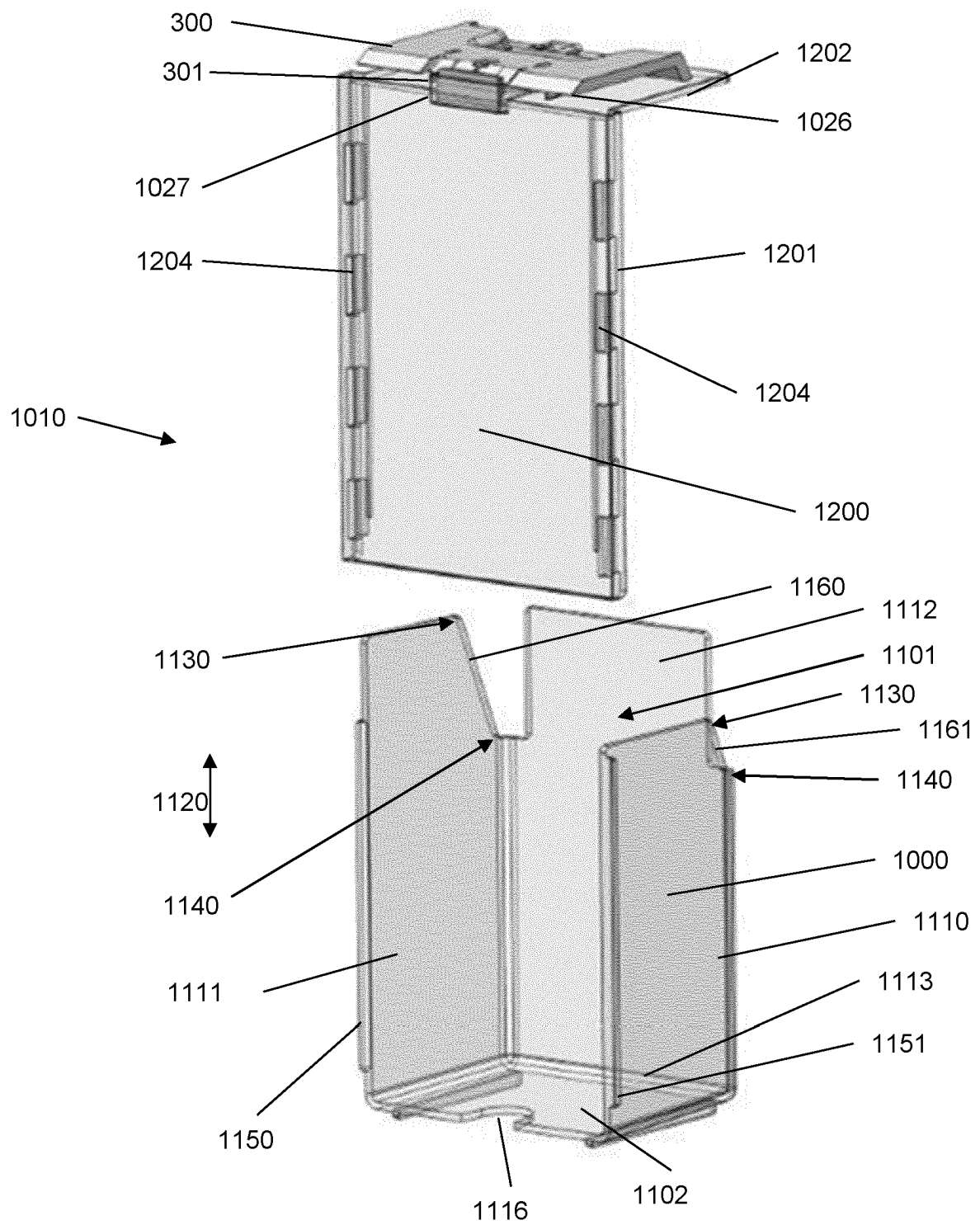


Fig. 5

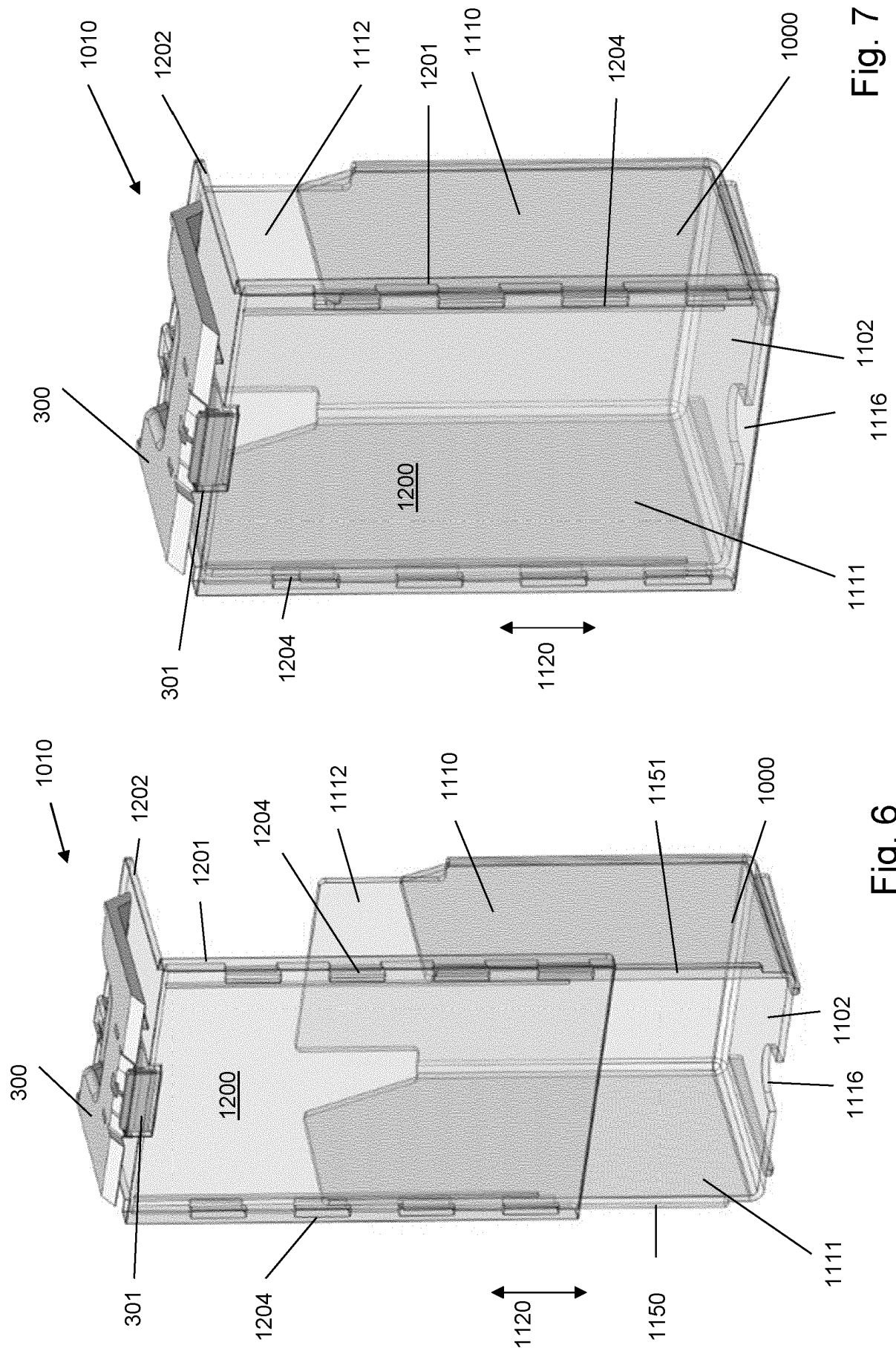


Fig. 7

Fig. 6

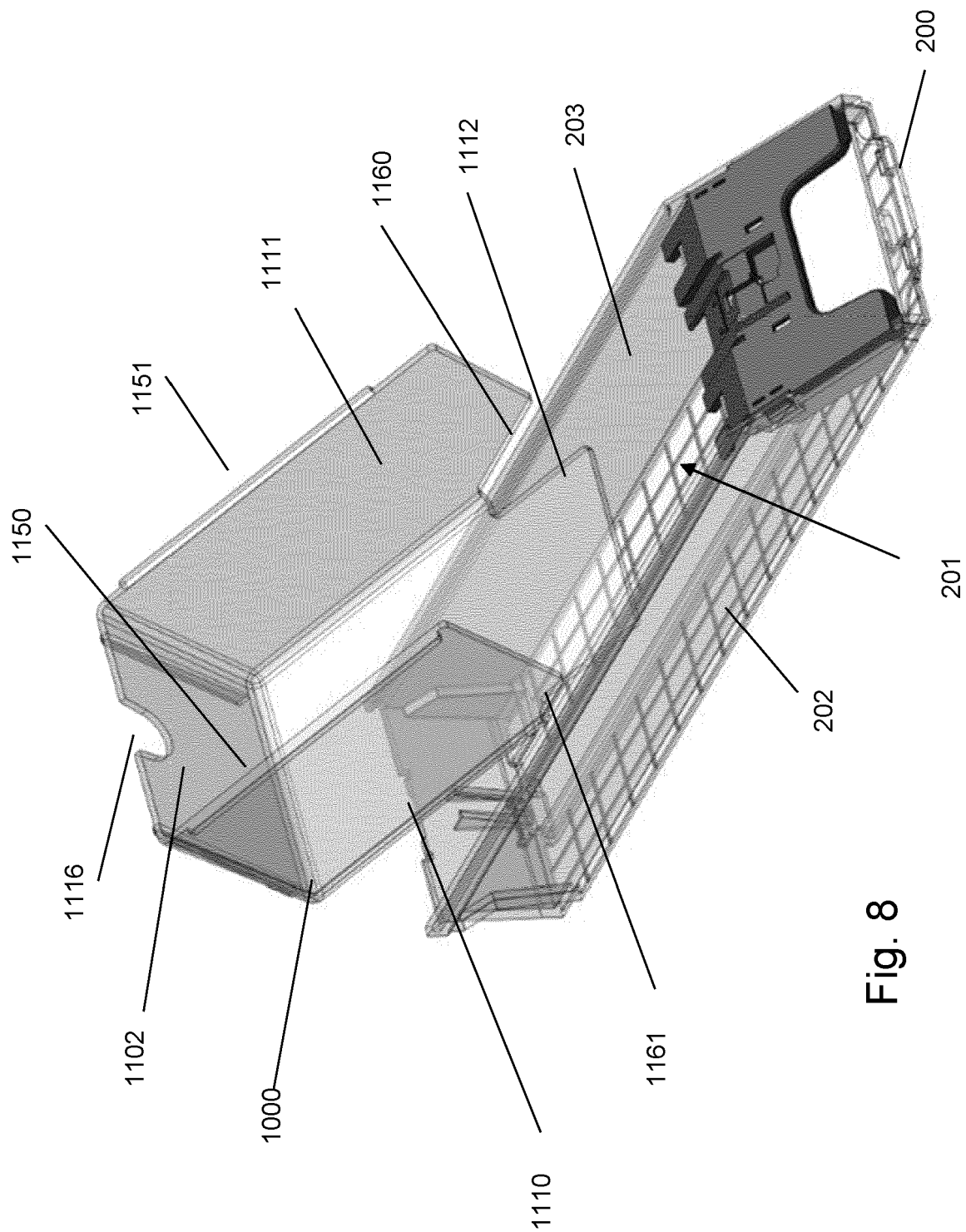


Fig. 8

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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