



US009630757B1

(12) **United States Patent**
Capous

(10) **Patent No.:** **US 9,630,757 B1**
(45) **Date of Patent:** **Apr. 25, 2017**

(54) **SELF-LOCKING PARCEL DELIVERY BOX**

(56) **References Cited**

(71) Applicant: **Nicholas George Capous**, Sacramento, CA (US)

U.S. PATENT DOCUMENTS

(72) Inventor: **Nicholas George Capous**, Sacramento, CA (US)

3,837,566	A *	9/1974	McGough	.....	G07F 9/06 232/15
6,375,070	B1 *	4/2002	Snoke	.....	A47G 29/141 232/20
6,540,134	B1 *	4/2003	Rasche	.....	B65D 11/18 220/4.28
7,175,071	B1 *	2/2007	Slagle	.....	A47G 29/16 220/833
7,743,935	B2 *	6/2010	Maid	.....	A47G 29/20 220/210
8,336,759	B2 *	12/2012	Skouboe	.....	A47G 29/124 232/45
8,358,199	B2 *	1/2013	Nesling	.....	A47G 29/141 232/20
2001/0045449	A1 *	11/2001	Shannon	.....	A47G 29/141 232/19
2006/0196780	A1 *	9/2006	Horngren	.....	G08B 13/06 206/1.5

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 85 days.

(21) Appl. No.: **14/881,351**

(22) Filed: **Oct. 13, 2015**

(51) **Int. Cl.**
A47G 29/12 (2006.01)
A45C 13/10 (2006.01)
B65D 55/14 (2006.01)
B65D 43/16 (2006.01)
B65D 43/22 (2006.01)
A47G 29/14 (2006.01)
A47G 29/16 (2006.01)
A47G 29/20 (2006.01)

* cited by examiner

Primary Examiner — Luan K Bui
(74) *Attorney, Agent, or Firm* — Craig A. Simmermon

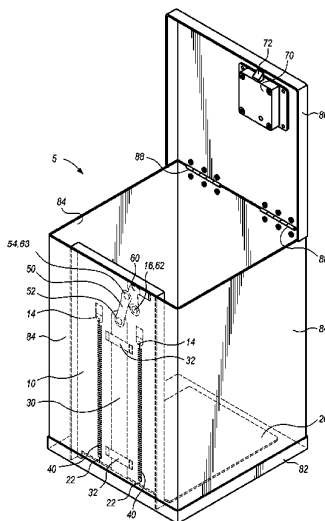
(52) **U.S. Cl.**
 CPC *B65D 55/14* (2013.01); *B65D 43/16* (2013.01); *B65D 43/22* (2013.01); *A47G 29/14* (2013.01); *A47G 29/16* (2013.01); *A47G 29/20* (2013.01)

(57) **ABSTRACT**

Self-locking parcel delivery box is a container with a special locking mechanism that allows a hinged lid to remain unlocked and openable while the container is empty but then automatically lock shut after a package or parcel has been placed inside and the hinged lid is closed. Special locking mechanism comprises, among other things, a rotating striker plate that remains in a closed position while container is empty but then rotates to an open position when a package or parcel is placed inside container. With rotating striker plate in the closed position, a latch cannot extend outward to latch or lock into a latch window when the hinged lid is closed, thereby keeping hinged lid unlocked and openable. With rotating striker plate in the open position, the latch will latch or lock into the latch window when the hinged lid is closed, thereby allowing hinged lid to lock shut.

(58) **Field of Classification Search**
 CPC A47G 29/12; A47G 29/14; A47G 29/16; A47G 29/20; B65D 43/16; B65D 43/22; B65D 55/14
 USPC 206/1.5; 70/63; 220/210, 212, 326; 232/1 A, 19, 20, 27, 29, 30, 31, 33, 41 D, 232/45; 312/211, 306, 333
 See application file for complete search history.

1 Claim, 6 Drawing Sheets



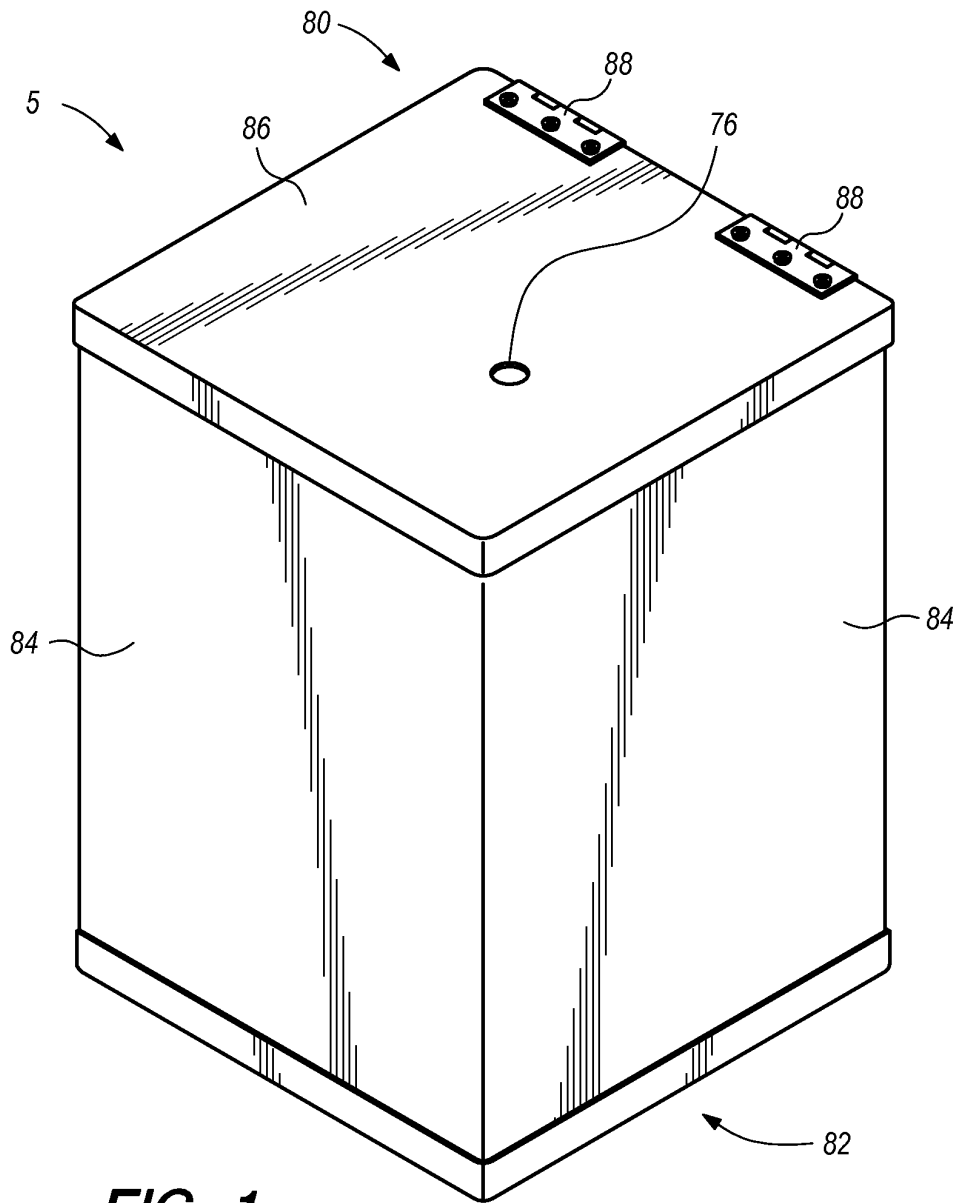


FIG. 1

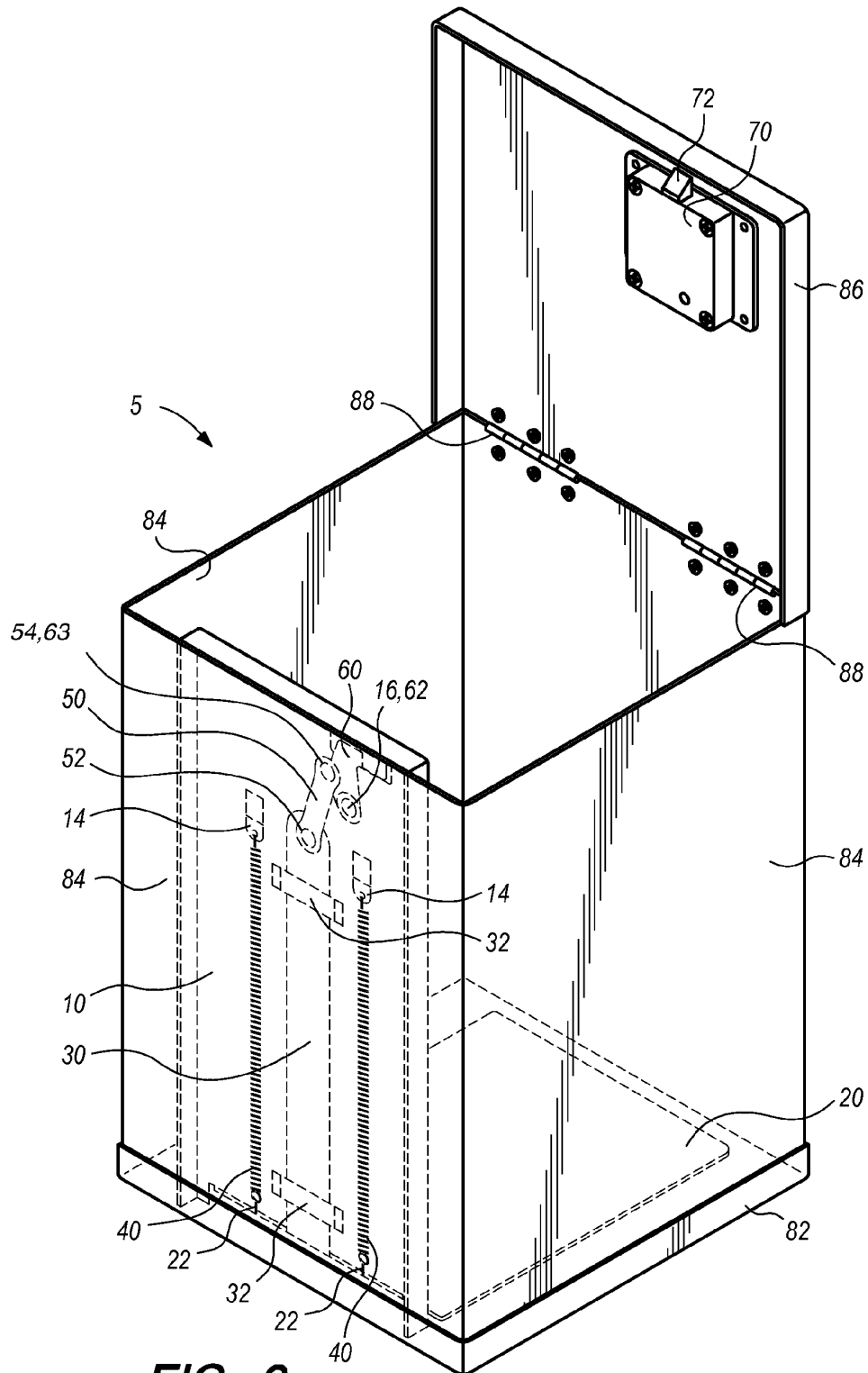


FIG. 2

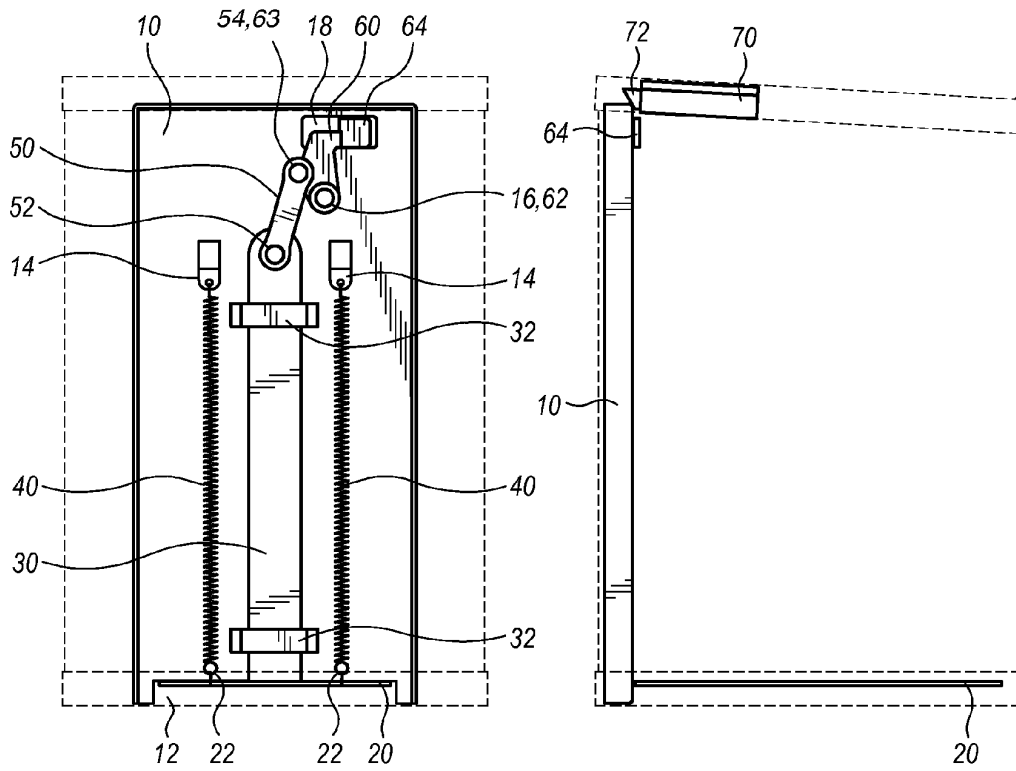


FIG. 3

FIG. 4

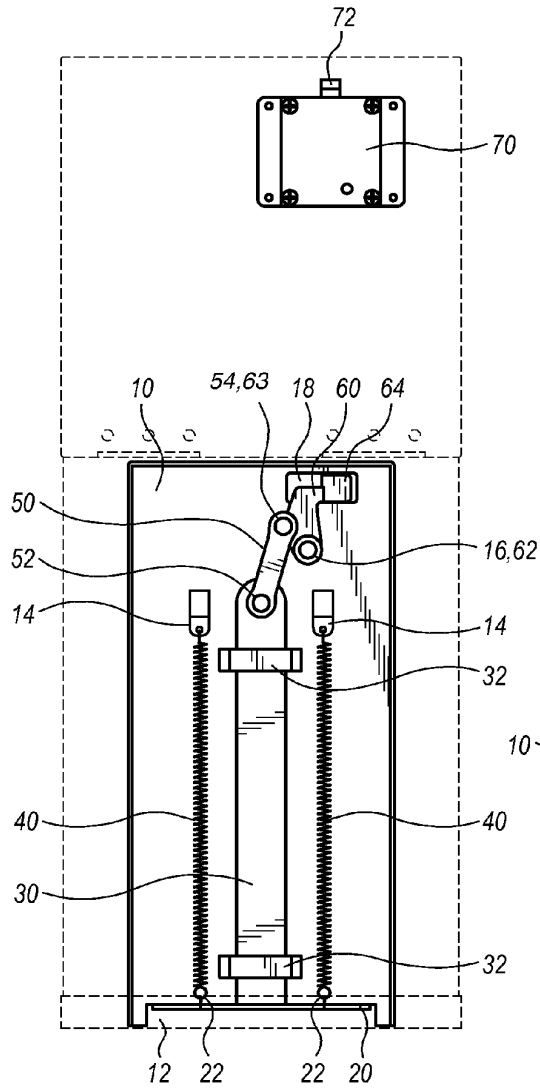


FIG. 5

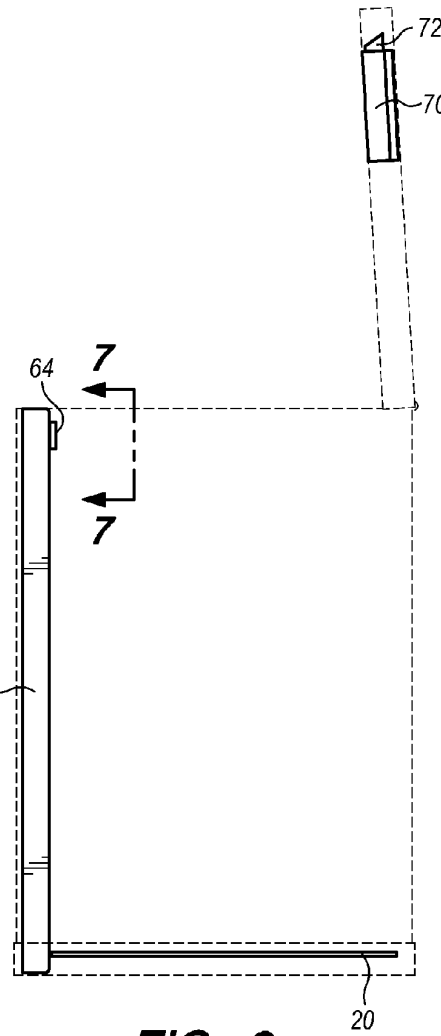


FIG. 6

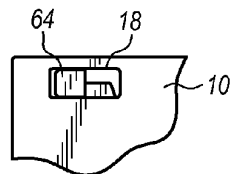


FIG. 7

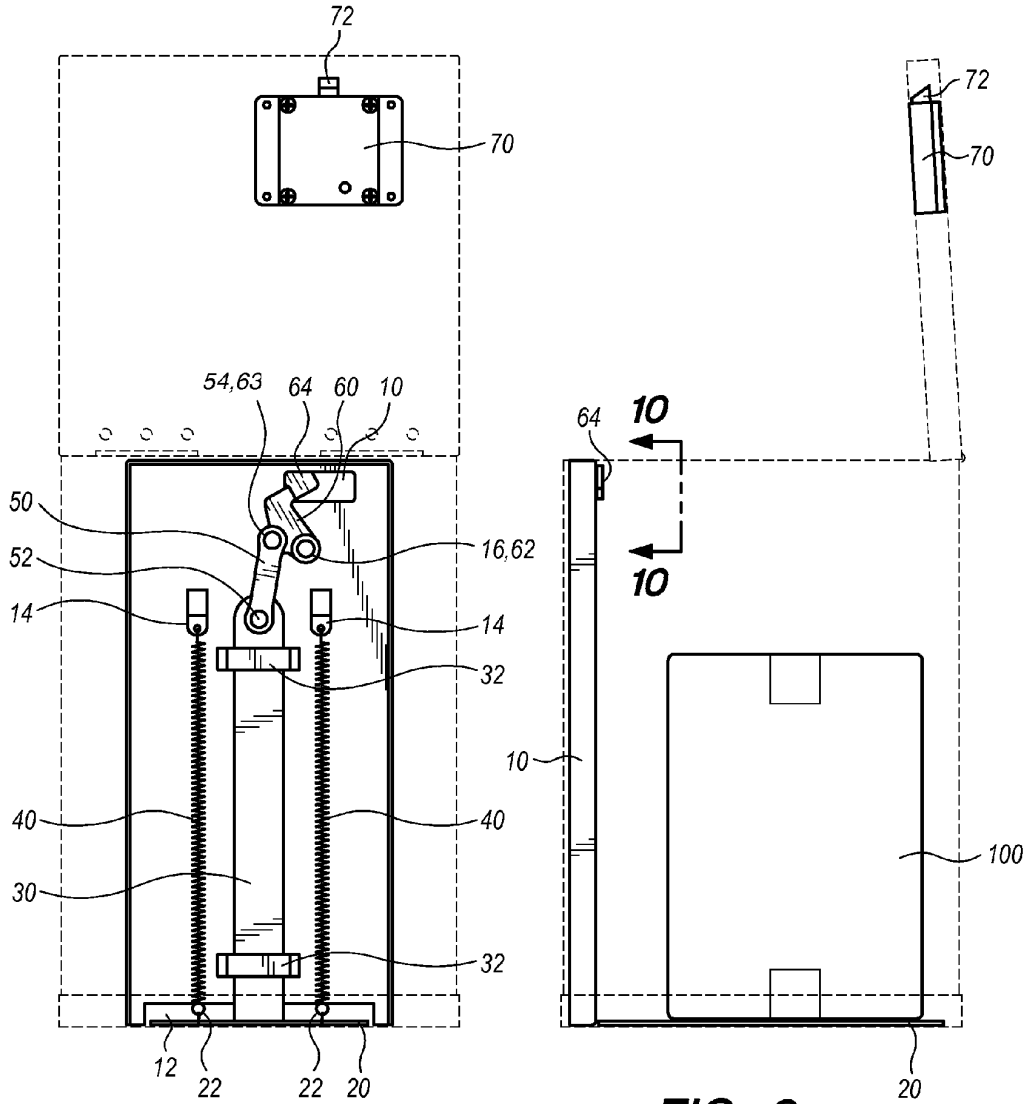


FIG. 8

FIG. 9

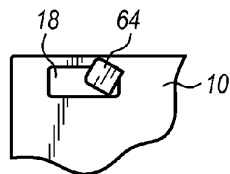


FIG. 10

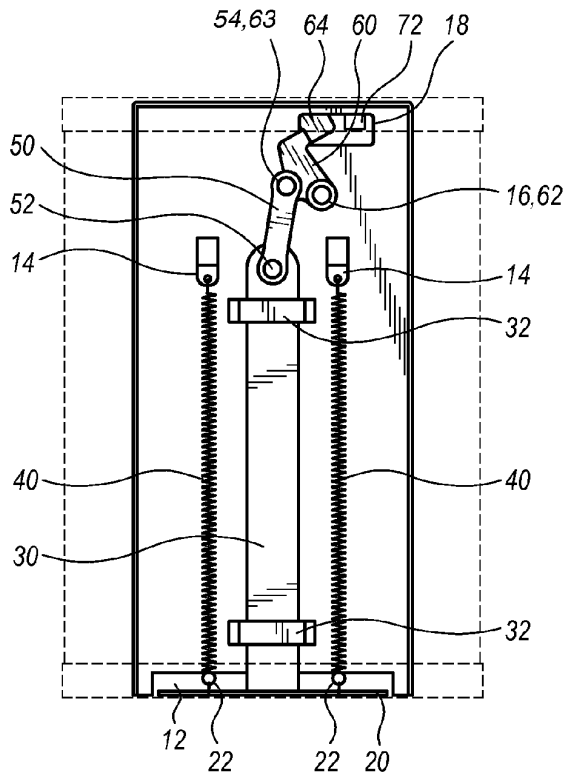


FIG. 11

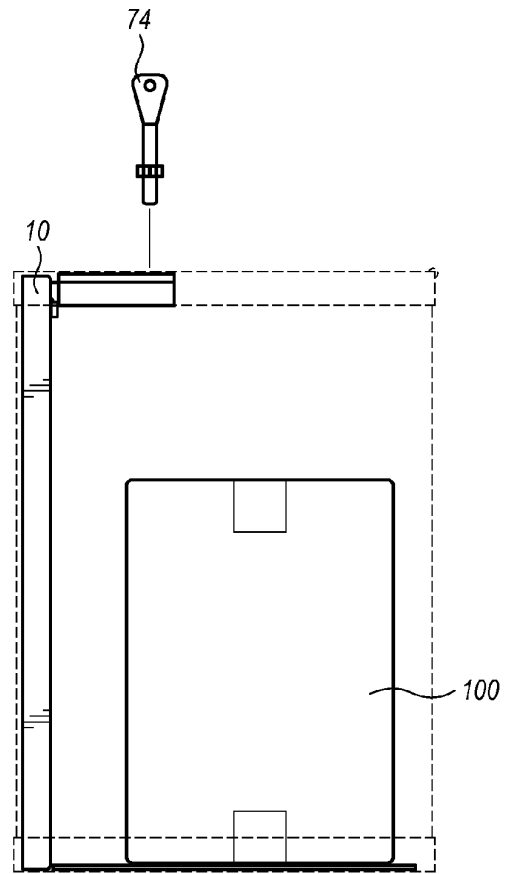


FIG. 12

SELF-LOCKING PARCEL DELIVERY BOX

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to package or parcel delivery boxes and specifically to package or parcel delivery boxes with self-locking mechanisms that allow the package or parcel delivery box to remain open and unlocked when empty but automatically lock after a package or parcel is placed inside and the lid is closed.

2. Description of Related Art

There are other self-locking package or parcel delivery boxes in the prior art however none disclose a self-locking mechanism as described below.

BRIEF SUMMARY OF THE INVENTION

Self-locking parcel delivery box is a container with a special locking mechanism that allows a hinged lid to remain unlocked and openable while the container is empty but then automatically lock shut after a package or parcel has been placed inside the container and the hinged lid is closed. Special locking mechanism comprises, among other things, a rotating striker plate that remains in a closed position while container is empty but then rotates to an open position when a package or parcel is placed inside container. With rotating striker plate in the closed position, a spring loaded latch cannot extend outward to latch or lock into a latch window when the hinged lid **86** is closed, thereby keeping hinged lid unlocked and openable. With rotating striker plate is in the open position, the spring loaded latch will latch and lock into latch window when the hinged lid is closed, thereby locking hinged lid shut.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top perspective view of self-locking parcel delivery box.

FIG. 2 is a top perspective view of self-locking parcel delivery box with hidden view of self-locking mechanism.

FIG. 3 is a front elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism.

FIG. 4 is a side elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism.

FIG. 5 is a front elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism just before a package or parcel is placed inside self-locking parcel delivery box.

FIG. 6 is a side elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism just before a package or parcel is placed inside self-locking parcel delivery box.

FIG. 7 is a blowup view of the inner surface of striker plate window just before a package or parcel is placed inside self-locking parcel delivery box.

FIG. 8 is a front elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism just after a package or parcel was placed inside self-locking parcel delivery box.

FIG. 9 is a side elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism just after a package or parcel was placed inside self-locking parcel delivery box.

FIG. 10 is a blowup view of the inner surface of striker plate window just after a package or parcel was placed inside self-locking parcel delivery box.

FIG. 11 is a front elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism after a package or parcel was placed inside self-locking parcel delivery box and hinged lid has been closed to lock hinged lid shut.

FIG. 12 is a side elevation view of self-locking parcel delivery box with hidden view of self-locking mechanism after a package or parcel was placed inside self-locking parcel delivery box and hinged lid has been closed to lock hinged lid shut.

DEFINITION LIST

Term	Definition
5	Self-Locking Parcel Delivery Box
10	Vertical Support Plate
12	Floating Base Plate Window
14	Spring Attachment Point on Vertical Support Plate
16	Rotating Striker Plate Pivotal Attachment Means
18	Striker Plate Window
20	Floating Base Plate
22	Spring Attachment Point on Floating Base Plate
30	Floating Stanchion
32	Slideable Attachment Means
40	Spring
50	Swing Arm
52	Lower Pivotal Attachment Means
54	Upper Pivotal Attachment Means
60	Rotating Strike Plate
62	Vertical Support Plate Pivotal Attachment Point on Rotating Striker Plate
63	Swing Arm Pivotal Attachment Point on Rotating Striker Plate
64	Striker Plate Protusion
70	Latch Assembly
72	Spring Loaded Latch
74	Key
76	Keyhole
80	Container
82	Container Bottom
84	Container Side
86	Hinged Lid
88	Hinge
100	Package or Parcel

DETAILED DESCRIPTION OF THE INVENTION

Self-locking parcel delivery box **5** comprises: a vertical support plate **10**, a floating base plate **20**, a floating stanchion **30**, at least one spring **40**, a swing arm **50**, a striker plate **60**, a latch assembly **70**, and a container **80**.

Container **80** comprises: a container bottom **82**, at least one container side **84**, a hinged lid **86**, and a hinge **88**. Container **80** is a secure hollow container in the shape of a rectangular cuboid, a cube, or a cylinder with an interior and an exterior. Container **80** is impervious to water. In the cases of a rectangular cuboid shaped container **80** and a cube shaped container **80**, container **80** comprises four container sides **84** that are each rigid planar members that are impervious to water with a width, a height, an inner surface, an outer surface, an upper end, and a lower end. In the case of a cylindrical shaped container **80**, container **80** comprises one container side **84** that is a rigid cylindrical shaped member that is impervious to water with a circumference, a height, an inner surface, an outer surface, an upper end, and a lower end. Container bottom **82** is a rigid planar member that is impervious to water with an upper surface and a lower surface. Inner surfaces of container sides **84** face the interior of container **80**. Exterior surfaces of container sides **84** face

the exterior of container 80. In the case of a rectangular cuboid shaped container 80, container bottom 82 is rectangular shaped or square shaped. In the case of a cube shaped container 80, container bottom 82 is square shaped. In the case of a cylindrical shaped container 80, container bottom 82 is circular shaped. All outer edges of container bottom 82 are rigidly attached to container side(s) 84 to form a watertight connection or seam there between. Watertight connection or seam must be sturdy, waterproof, weatherproof, and able to withstand attempts to pry the seam open in order to prevent someone from breaking into the container 80. Container bottom 82 and container side(s) 84 form an open-topped watertight receptacle. Hinged lid 86 is a rigid planar member that is impervious to water with an outer edge, an upper surface, and a lower surface. In the case of a rectangular cuboid shaped container 80, hinged lid 86 is rectangular shaped or square shaped. In the case of a cube shaped container 80, hinged lid 86 is square shaped. In the case of a cylindrical shaped container 80, hinged lid 86 is circular shaped. Hinge 88 is a hinge or bearing member that pivotally attaches or connects hinged lid 88 to a container side 84. Hinge 88 is positioned vertically so that its axis of rotation is positioned horizontally. Hinge 88 has an upper end and a lower end. The lower end of hinge 88 is rigidly attached to the upper end of a container side 84. The upper end of hinge 88 is rigidly attached to the outer edge of hinged lid 86. Hinge 88 functions to allow the pivotal attachment of hinge 88 to a side 84 of container 80 to allow for the rotation of hinged lid 82 about hinge 88. Hinged lid 86 rotates upwards to open hinged lid 86 and rotates downwards to close hinged lid 86. When hinged lid 86 is closed, it is positioned horizontally and forms a waterproof and weatherproof connection with the upper end(s) of all container side(s) 84. When hinged lid 86 is closed and locked shut, it forms sturdy connection with the upper end(s) of all container side(s) 84 that is able to withstand attempts to pry hinged lid 86 open in order to prevent someone from breaking into container 80 when it is locked shut. In best mode, there are two hinges 88.

Vertical support plate 10 is a rigid oblong planar member with an overall width, an overall height, a lower end, an upper end, an inner surface, and an outer surface. Vertical support plate 10 is positioned vertically inside the interior of container 80 with its lower end rigidly affixed to the upper surface container bottom 82 with the longitudinal axis of vertical support plate 20 perpendicular to container bottom 80. The inner surface of vertical support plate 10 faces the interior of container 80. The outer surface of vertical support plate 10 faces the exterior of container 80. Vertical support plate 10 is positioned adjacent to a container side 84 so that there is about 0.125 to 2.0 inches of space between the outer surface of vertical support plate 10 and the inner surface of the adjacent container side 84. Floating stanchion 30, at least one spring 40, swing arm 50, and rotating striker plate 6 are located and housed between the outer surface of vertical support plate 10 and the inner surface of the adjacent container side 84 as depicted. Vertical support plate 10 is a sturdy vertical support member that solely supports floating base plate 20, floating stanchion 30, at least one spring 40, swing arm 50, rotating striker plate 60, and the weight of a package or parcel 100 placed inside self-locking parcel delivery box 5. Floating base plate 20, floating stanchion 30, at least one spring 40, swing arm 50, rotating striker plate 60, and package or parcel 100 move or float upwards and downwards relative to vertical support plate 10, which is stationary and rigidly affixed to container bottom 82. Vertical support plate 10 also functions as a housing, firewall, or divider plate to separate floating stanchion 30, at least one

spring 40, swing arm 50, and rotating striker plate 6, which are moving parts, from the interior of container 80 where a package or parcel 100 is placed, in order to all keep moving parts from physically contacting or touching package or parcel 100. Overall width of vertical support plate 10 must be less than the width or circumference of container side 84 and height of vertical support plate 10 must be less than that of container side 84 to allow vertical support plate 10 to fit inside container 80. Any know attachment means may be used to attach lower end of vertical support plate 10 to upper surface of container bottom 82 such as weld, glue, epoxy, bolts, screws, rivets, clips, or snaps. In best mode, vertical support plate 10 is rectangular. Vertical support plate 10 further comprises a floating base plate window 12. Floating base plate window 12 is a rectangular shaped void or notch in the lower end of vertical support plate 10 as depicted. Floating base plate window 12 has a width, a height, a left end, a right end and an upper end. Floating base plate window 12 functions to provide clearance for floating base plate 20 to freely float or move vertically upwards and downwards. The width of floating base plate window 12 is slightly large than the width of floating base plate 20. The height of floating base plate window 12 must be large enough to allow for sufficient vertical movement of floating base plate 20 to yield sufficient rotation of rotating striker plate 60 to allow successful locking and unlocking of latch assembly 70. This mechanism is described in more detail below. Vertical support plate 10 further comprises at least one spring attachment point 14 on its outer surface at its upper end. Typically, there is one spring attachment point 14 for each spring 40. Spring attachment point 14 is a means to reversibly attach the upper end of a spring 40 thereto. Spring attachment means could be any known means such as a hook, a ring, an eye, a hole, a connector, a fitting, fastener, screw, bolt, staple, nail, or any other known means. Vertical support plate 10 further comprises a rotating striker plate pivotal attachment means 16 on its outer surface at its upper end. Rotating striker plate pivotal attachment means 16 functions to pivotally attach rotating striker plate 60 to the outer surface of vertical support member 10 at a location just below rotating striker plate window 18 as depicted. Rotating striker plate pivotal attachment means 16 is a means to pivotally attached rotating striker plate 60 to vertical support plate 10, which could be accomplished by a hinge, a bearing, an axle, a hub, a spindle, a pin, a rivet, a screw, a bolt, or any other know means of pivotal attachment. Vertical support plate 10 further comprises a striker plate window 18. Striker plate window 18 is a rectangular shaped or semi-rectangular shaped void or hole in the upper end of vertical support plate 10 that functions to receive a spring loaded latch 72 when hinged lid 86 is locked shut. Striker plate window 18 must be sized slight larger than spring loaded latch 72 so that spring loaded latch 72 may penetrate through striker plate window in order to lock latch assembly 70 to striker plate window 18. One end of rotating striker plate 60, called the striker plate protrusion 66, is inserted through striker plate window 18 as depicted. Rotating striker plate 60 rotates back and forth within striker plate window 18 in order to either disallow hinged lid 86 from locking shut or to allow hinged lid to lock shut. As discussed below, rotating striker plate 60 rotates back and forth to block striker plate window 18 so that spring loaded latch 72 cannot penetrate into striker plate window 18 or to unblock striker plate window 18 to allow spring loaded latch 72 to penetrate striker plate window 18 and lock hinged lid 86 shut.

Floating base plate 20 is a rigid horizontal planar member with an upper surface and a lower surface. In the case of a

5

rectangular cuboid shaped container **80**, floating base plate **20** is rectangular shaped or square shaped. In the case of a cube shaped container **80**, floating base plate **20** is square shaped. In the case of a cylindrical shaped container **80**, floating base plate **20** is circular shaped. The outer dimensions of floating base plate **20** are slightly smaller than the inner dimensions of container **80** so that floating base plate may freely slide upwards and downwards without its edges touching the inner surface of container side(s) **84** but also without leaving too much clearance to allow for a package or parcel **100** to fall there between. The upper surface of floating base plate **20** is rigidly attached to the lower end of floating stanchion **30**. Floating base plate **20** further comprises at least one spring attachment point **22** on its upper surface. Typically, there is one spring attachment point **22** for each spring **40**. Spring attachment point **22** is a means to reversibly attached the lower end of spring **40** thereto. Spring attachment means could be accomplished any known means such as a hook, a ring, an eye, a hole, a connector, a fitting, fastener, screw, bolt, staple, nail, or any other known means.

Floating stanchion **30** is a rigid oblong planar member with an overall width, an overall height, a lower end, an upper end, an inner surface, and an outer surface. Floating stanchion **30** is a sturdy vertical support member. Floating stanchion **30** is positioned vertically between the outer surface of vertical support plate **10** and the inner surface of the adjacent container side **84** as depicted. The lower end of floating stanchion **30** is rigidly affixed to the upper surface of floating base plate **20** with the longitudinal axis of floating stanchion **30** perpendicular to floating base plate **20**. Floating stanchion **30** further comprises a slideable attachment means **32**. Slideable attachment means **32** is a means to slideably attach floating stanchion **30** to the outer surface of vertical support plate **10** so that floating stanchion **30** may slide vertically upwards and downwards, but is prevented from movement in all other directions. Slideable attachment means **32** may be accomplished by any known means such as: wheel and track, tongue and groove, guide, bearing, loop, collar, or any other known means. In best mode, slideable attachment means **32** is two horizontal collars or loops rigidly attached to the inner surface of vertical support member **10**, one at the upper end of floating stanchion **30**, one at the lower end of floating stanchion **30**, with floating stanchion **30** running vertically and inserted through each as depicted. With this mode the two collars or loops each have an inner dimension that is sized to make a slip fit with the outer dimension of the horizontal cross section of floating stanchion **30** so that floating stanchion **30** may freely slide upwards and downwards but is retained from moving in all other directions.

At least one spring **40** is a vertical spring member with an upper end and a lower end. At least one spring **40** is a coil spring, flat spring, machined spring, compression spring, cantilever spring, leaf spring, v-spring, gas spring, torsion spring, hairspring, rubber band, elastic band, or any other type of spring. Best mode at least one spring **40** is a coil spring. The upper end of at least one spring **40** is connected to spring attachment point **22** on floating base plate **20**. The lower end of at least one spring **40** is connected to spring attachment point **22** on floating base plate **20**. At least one spring **40** must be of the proper length and tension to apply continuous upward tension on floating base plate **20** to pull the floating base plate **20** all the way upwards to contact and rest against upper end of floating base plate window **12** when there is no package or parcel **100** sitting on the upper surface of floating base plate **20**, but still allow the floating base

6

plate **20** fall all the way downwards to rest on the upper surface of container bottom **82** when a package or parcel **100** sitting on the upper surface of floating base plate **20**. In best mode, there are two springs **40**, where one is positioned on each side of floating stanchion **30** to provide equal or balanced upward tension on each side of floating stanchion **30**.

Swing arm **50** is a rigid oblong member with an upper end and a lower end. Swing arm **50** has a lower pivotal attachment means **52** at its lower end and an upper pivotal attachment means **54** at its upper end. Lower pivotal attachment means **52** is a means to pivotally attach the lower end of swing arm **50** to the upper end of floating stanchion **30**. Pivotal attachment is such that swing arm **50** may freely rotate around the point of pivotal attachment and remains connected to the upper end of floating stanchion **30**. Pivotal attachment could be accomplished by a hinge, a bearing, an axle, a hub, a spindle, a pin, a rivet, a screw, a bolt, or any other known means of pivotal attachment. Upper pivotal attachment means **54** is a means to pivotally attach the upper end of swing arm **50** to swing arm pivotal attachment point **63** on rotating striker plate **60**. Pivotal attachment is such that swing arm **50** may freely rotate around the point of pivotal attachment and remains connected to the pivotal attachment point **63** on rotating striker plate **60**. Pivotal attachment could be accomplished by a hinge, a bearing, an axle, a hub, a spindle, a pin, a rivet, a screw, a bolt, or any other known means of pivotal attachment.

Rotating striker plate **60** is a rigid tri-planar member wherein two parallel planar members are rigidly connected together by a third planar member perpendicular thereto. Rotating striker plate **60** comprises a plane one, a plane two, and a plane three, each with a first and second end. Planes one and two are parallel to each other and plane three is perpendicular to planes one and two. The first end of plane three rigidly attached to second end of plane one and the second end of plane three rigidly attached to first end of plane two to yield a rigid step-shaped structure with two steps. Rotating striker plate **60** is positioned within rotating striker plate window **18** so that: plane one is adjacent to and parallel with the outer surface of vertical support plate **10**, plane two is adjacent to and parallel with the inner surface of vertical support plate **10**, and plane three is perpendicular to vertical support plate **10** and straddles rotating striker plate window **18** with its first end adjacent to the outer surface of vertical support plate **10** and its second end adjacent to the inner surface of vertical support plate **10**, as depicted. Rotating striker plate **60** further comprises a swing arm pivotal attachment point **62** located on the first end of plane one. Rotating striker plate **60** is pivotally attached to swing arm **50** by rotating striker plate pivotal attachment means **16**. As stated, pivotal attachment could be accomplished by a hinge, a bearing, an axle, a hub, a spindle, a pin, a rivet, a screw, a bolt, or any other known means of pivotal attachment. Rotating striker plate **60** further comprises a swing arm pivotal attachment point **63** also located on plane one, at a location that is above vertical support plate pivotal attachment point **62**. As stated, rotating striker plate **60** is pivotally attached to the upper end of swing arm **50** by upper pivotal attachment means **52**. Rotating striker plate **60** further comprises a striker plate protrusion **64**. Striker plate protrusion **64** is plane two of striker plate **60**. Striker plate protrusion **64** functions to either: block striker plate window **18** to prevent spring loaded latch **72** from penetrating through striker plate window **18** in order to keep hinged lid **86** from locking shut or unblock striker plate window **18** to allow spring loaded latch **72** to penetrate through striker

plate window **18** in order to lock hinged lid **86** shut. As a result of its mechanical connection or linkage to floating base plate **20**, rotating striker plate **60** blocks striker plate window **10** when floating base plate **20** is in its upper most position and unblocks striker plate window **10** when floating base plate **20** is in its lower most position.

Latch assembly **70** comprises a housing, an internal lock mechanism (not depicted), a spring loaded latch **72**, a key **74**, and a keyhole **76**. Internal lock mechanism is a lock mechanism that functions to retract spring loaded latch **72** in response to the turning of key **74** when positioned in keyhole **76**. Internal lock mechanism is a standard lock mechanism that allows the user to retract spring loaded latch **72** with the rotation of key **74** when properly inserted into keyhole **76**. Spring loaded latch **72** is a standard latch with bias pressure forcing the latch to extend outward, which can be overcome by pressing the spring loaded latch **72** inward with about 0.25-10 pounds of force.

To use self-locking parcel delivery box **5**, self-locking parcel delivery box **5** is placed in empty unlocked condition at a location where packages or parcels are normally delivered. At the time of package or parcel **100** delivery, hinged lid **86** is lifted or opened, the package or parcel **100** is placed inside, where the weight of the package or parcel **100** pushes or forces floating base plate **20** downwards so that rotating striker plate **60** rotates downwards to unblock striker plate window **18**. Hinged lid **86** is then closed and pushed shut so that spring loaded latch **72** penetrates through striker plate window **18** to effectuate the locking shut of hinged lid **86** on container **80**. At the time of package or parcel **100** retrieval from self-locking parcel delivery box **5**, key **74** is placed in keyhole **76** and rotated therein to cause spring loaded latch **72** to retract from penetrating through striker plate window **18** to allow for hinged lid **86** to unlock. Hinged lid **86** is then lifted or opened and package or parcel **100** is lifted off of floating base plate **20** and retrieved from container **80**. The lifting of package or parcel **100** off of floating base plate **20** causes the floating base plate **20** to rise upwards to cause rotating striker plate **60** to rotate back upwards to block striker plate window **18** to allow for hinged lid to remain openable and unlocked until another package or parcel **100** is placed inside container **80**.

What is claimed is:

1. Self-locking parcel delivery box comprising: a vertical support plate; a floating base plate; a floating stanchion; at least one spring; a swing arm; a rotating striker plate; a latch assembly; and a container, wherein,

said vertical support plate is a rigid vertical planar member with a lower end, an upper end, an inner surface, an

outer surface, a floating base plate window, at least one spring attachment point, a rotating striker plate pivotal attachment means, and a rotating striker plate window, said floating base plate is a rigid horizontal planar member with an upper surface, a lower surface, and at least one spring attachment point,

said floating stanchion is a rigid oblong vertical support member with a lower end, an upper end, an inner surface, an outer surface, and a slideable attachment means,

said at least one spring is a vertical spring member with an upper end and lower end,

said swing arm is a rigid oblong member with a lower end, an upper end, a lower pivotal attachment means to pivotally attach said lower end of said swing arm to said upper end of said floating stanchion, and an upper pivotal attachment means to pivotally attach said upper end of said swing arm to said rotating striker plate,

said rotating striker plate is a rigid tri-planar step-shaped member with a vertical support plate pivotal attachment point, a swing arm pivotal attachment point, and a striker protrusion,

said latch assembly comprises a spring loaded latch,

said container comprises: a container bottom, at least one container side, and a hinged lid,

said lower end of said vertical support plate is rigidly attached to said container bottom,

said upper surface of said floating base plate is rigidly attached to said lower end of said floating stanchion,

said floating stanchion is slideably attached to said outer surface of said vertical support plate by said slideable attachment means,

said lower end of said at least one spring is attached to said upper surface of said floating base plate,

said upper end of said at least one spring is attached to said upper end of said vertical support plate,

said lower end of said swing arm is pivotally attached to said upper end of said floating stanchion by said lower pivotal attachment means,

said upper end of swing arm to is pivotally attached to said rotating striker plate by said upper pivotal attachment means,

said rotating striker plate is pivotally attached to said upper end of Said vertical support member by said rotating striker plate pivotal attachment means, and said latch assembly is rigidly attached to said hinged lid.

* * * * *