Abstract: A lockable enclosure includes a housing and an access door. The access door includes a hinge portion connected with a first side wall of the housing and is pivotable about the hinge portion between closed and open positions. When the access door is in the closed position, the hinge portion of the access door is slideable for sliding movement of the access door between a latching position in which a first latch portion of the access door engages a corresponding second latch portion of the housing to secure the access door in the closed position, and a release position in which the first interlock portion disengages from the second interlock portion to permit pivoting movement of the access door from the closed position to the open position. The access door further comprises at least one locking feature configured to secure the closed access door in the latching position.
Published:
— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
MULTIPLE USER LOCKOUT SYSTEMS

Cross-reference to Related Applications
[0001] This application claims priority to and all benefit of U.S. Provisional Patent Application Serial No. 62/246,902, filed on October 27, 2015, for MULTIPLE USER LOCKBOX, and U.S. Provisional Patent Application Serial No. 62/318,332, filed on April 5, 2016, for MULTIPLE USER LOCKING ENCLOSURE AND DOCUMENT DISPLAY, the entire disclosures of both of which are fully incorporated herein by reference.

Background
[0002] Many safety lockout devices are provided for restricting access to equipment and control instruments, including, for example, electrical components, such as switches, dials and push buttons, and fluid system components, such as valves and pressure regulators. Industrial and commercial equipment are often provided with or assembled with a key-operated lockout mechanism (e.g., a locking bracket and padlock or similar structure) to facilitate the restriction of access to or operation of the equipment.

[0003] In some applications, the authorization of multiple technicians or other authorized personnel is required to allow access to, or operation of, a locked out system or piece of equipment, for example, to comply with established safety procedures. In such an application, the use of multiple keys controlled by multiple users may be required to unlock the one or more lockout mechanisms to place the equipment in an operable condition.

Summary
[0004] According to an exemplary embodiment of the present application, a lockable enclosure includes a housing and an access door. The housing includes first, second, third, and fourth side walls each extending forward from a rear wall to a front end to define a storage cavity therebetween. The access door includes a hinge portion connected with the first side wall, the access door being pivotable about a longitudinal axis of the hinge portion between a closed position blocking access to the cavity and an open position permitting access to the cavity. When the access door is in the closed position, the hinge portion of the access door is slideable for sliding movement of the access door between a latching position
in which a first latch portion of the access door engages a corresponding second latch portion of the housing to secure the access door in the closed position, and a release position in which the first interlock portion disengages from the second interlock portion to permit pivoting movement of the access door from the closed position to the open position. The access door further comprises at least one locking feature configured to secure the closed access door in the latching position when the at least one locking feature is in a locked condition and to permit sliding movement of the closed access door to the release position when the at least one locking feature is in an unlocked condition.

[0005] According to another exemplary embodiment of the present application, a lockbox includes a body including front, rear, and first and second side body walls each extending upward from a bottom body wall to an upper edge to define a storage enclosure therebetween, and a first body flange extending laterally outward from a bottom end of the upper portion of the first body side wall, and a lid connected to the body and pivotable between a closed position blocking access to the enclosure and an open position permitting access to the enclosure. The lid includes front and first and second side lid walls extending downward from a top lid wall to a lower edge to overhang upper portions of the front and first and second side body walls when the lid is in the closed position, and a first lid flange extending laterally outward from the lower edge of the first lid side wall. When the lid is in the closed position, a first lid lock aperture in the first lid flange aligns with a first body lock aperture in the first body flange, such that insertion of a padlock shackle through the first lid lock aperture and the first body lock aperture prevents movement of the lid with respect to the body.

[0006] According to another exemplary embodiment of the present application, a lockbox includes a body having front, rear, and first and second side body walls each extending upward from a bottom body wall to an upper edge to define a storage enclosure therebetween, and a lid connected to the body and pivotable between a closed position blocking access to the enclosure and an open position permitting access to the enclosure. The lid includes front and first and second side lid walls extending downward from a top lid wall to a lower edge to overhang upper portions of the front and first and second side body walls when the lid is in the closed position. When the lid is in the closed position, the lid is slideable between a latched position in which the lid is secured against pivoting movement to
the open position and an unlatched position in which the lid is permitted to pivot to the open position. When the lid is in the latched position, a first lid lock aperture in the lid aligns with a first body lock aperture in the body, such that insertion of a padlock shackle through the first lid lock aperture and the first body lock aperture prevents sliding movement of the lid from the latched position to the unlatched position. The lid is pivotably connected to the body by first and second pivot pins slideable in first and second side slots to permit sliding movement of the lid between the latched and unlatched positions.

[0007] According to another exemplary embodiment of the present application, a safety lockout system includes at least one lockbox and at least one padlock. The at least one lockbox includes a body defining a storage enclosure and a lid connected to the body and pivotable between a closed position blocking access to the enclosure and an open position permitting access to the enclosure. The body includes front, rear, and first and second side body walls each extending upward from a bottom body wall to an upper edge to define the storage enclosure therebetween, and a first body flange extending laterally outward from a bottom end of the upper portion of the first body side wall and defining a plurality of body lock apertures. The lid includes front and first and second side lid walls extending downward from a top lid wall to a lower edge to overhang upper portions of the front and first and second side body walls when the lid is in the closed position, and a first lid flange extending laterally outward from the lower edge of the first lid side wall and defining a plurality of lid lock apertures that align with the plurality of body lock apertures when the lid is in the closed position. The padlock includes a padlock shackle securable with a lock body. When the padlock shackle of the at least one padlock is inserted through aligned ones of the plurality of lid lock apertures and the plurality of body lock apertures and secured with the lock body to prevent movement of the lid with respect to the body of the at least one lockbox, the padlock is positionable entirely laterally outward of the first body side wall and entirely below the lid top wall.

[0008] According to an exemplary embodiment of the present application, a lockable enclosure includes a housing and an access door. The housing includes an upper wall, a lower wall, and first and second side walls each extending forward from a rear wall to a front end to define a storage cavity therebetween. The access door includes a hinge portion connected with the lower wall, and is pivotable about a longitudinal axis of the lower hinge portion.
between a closed position blocking access to the cavity and an open position permitting access to the cavity. When the access door is in the closed position, the access door is slideable along the longitudinal axis between an interlocking position in which an interlock portion of the access door interlocks with a corresponding interlock portion of the upper wall to secure the access door in the closed position, and a release position in which the access door interlock portion of the access door disengages from the upper wall interlock portion to permit pivoting movement of the access door from the closed position to the open position. The access door further comprises a locking feature configured to secure the closed access door in the interlocking position in a locked condition and to permit sliding movement of the closed access door to the release position in an unlocked condition.

According to another exemplary embodiment of the present application, a document display apparatus includes a wall mountable substrate and at least one document retaining frame having upper, lower, and first and second side wall portions surrounding a transparent central portion, with the at least one document retention frame being hingedly connected to the wall mountable substrate along the first side wall portion for pivoting movement of the first document retaining frame between a document display position in which a rear surface of the at least one document retaining frame abuts the wall mountable substrate, and a document access position, in which the rear surface of the document retaining frame is exposed. A document mounting feature is connected with the at least one document retaining frame, and is configured to releasably secure a document to the rear surface of the at least one document retaining frame against the transparent central portion. A frame attachment feature is assembled with one of the wall mountable substrate and the at least one document retaining frame, and is movable between a frame securing position securing the second side wall portion to the wall mountable substrate, and a frame releasing position permitting pivoting movement of the at least one document retaining frame from the document display position to the document access position.

**Brief Description of the Drawings**

[0009] Further features and advantages of the invention will become apparent from the following detailed description made with reference to the accompanying drawings, wherein:
Figure 1 illustrates an upper front perspective view of a lockbox, shown with
the lid in a closed and latched position, in accordance with an exemplary embodiment;

Figure 2 illustrates a lower rear perspective view of the lockbox of Figure 1;

Figure 3 illustrates a front view of the lockbox of Figure 1;

Figure 4 illustrates a rear view of the lockbox of Figure 1;

Figure 5 illustrates a left side view of the lockbox of Figure 1;

Figure 6 illustrates a right side view of the lockbox of Figure 1;

Figure 7 illustrates a top view of the lockbox of Figure 1;

Figure 8 illustrates a bottom view of the lockbox of Figure 1;

Figure 9 illustrates a side view of the lockbox of Figure 1, shown stacked with
another lockbox in accordance with an exemplary embodiment;

Figure 10 illustrates an upper perspective view of the lockbox of Figure 1, shown with the lid in a closed and unlatched position;

Figure 11 illustrates an upper perspective view of the lockbox of Figure 1, shown with the lid in an open position;

Figure 12 illustrates an upper front perspective view of a lockbox, shown with
the lid in a closed and latched position, in accordance with another exemplary embodiment;

Figure 13 illustrates a side cross-sectional view of the lockbox of Figure 12;

Figures 14A - 14H illustrate top/left/front perspective, bottom/right/rear
perspective, front elevational, rear elevational, left side elevational, right side elevational, top
plan, and bottom plan views of an exemplary lockbox;

Figures 15A - 15H illustrate top/left/front perspective, bottom/right/rear
perspective, front elevational, rear elevational, left side elevational, right side elevational, top
plan, and bottom plan views of another exemplary lockbox;

Figures 16A and 16B illustrate bottom/right/rear perspective and right side
elevational views of another exemplary lockbox similar to the exemplary lockbox of Figures
15A - 15H except having a window panel in the right side body wall;

Figure 17 illustrates a front perspective view of a lockable enclosure, in
accordance with an exemplary embodiment, shown with the access door in a closed,
interlocking position;

Figure 17A illustrates a front perspective view of the lockable enclosure of
Figure 17, in accordance with an exemplary embodiment, shown with padlocks securing the access door in the closed, interlocking position;

[0028] Figure 18 illustrates a front perspective view of the lockable enclosure of Figure 17, shown with the access door in a closed, release position;

[0029] Figure 19 illustrates a front perspective view of the lockable enclosure of Figure 17, shown with the access door in an open position;

[0030] Figure 20 illustrates a front perspective view of another lockable enclosure, in accordance with another exemplary embodiment, shown with the access door in an open position;

[0031] Figure 21 is a front perspective view of a document display apparatus, shown with the document retaining frames in the display position;

[0032] Figure 22 is a front perspective view of the document display apparatus of Figure 21, shown with the document retaining frames in the access position;

[0033] Figure 23 is a front perspective view of another document display apparatus, shown with the document retaining frame in the display position;

[0034] Figure 24 is a front perspective view of a permit station, in accordance with an exemplary embodiment, including the lockable enclosure of Figure 17 and the document display apparatus of Figure 21; and

[0035] Figure 25 is a front perspective view of another permit station, in accordance with another exemplary embodiment, including the lockable enclosure of Figure 20 and the document display apparatus of Figure 23.

Detailed Description

[0036] The Detailed Description merely describes exemplary embodiments is not intended to limit the scope of the claims in any way. Indeed, the invention as claimed is broader than and unlimited by the exemplary embodiments, and the terms used in the claims have their full ordinary meaning.

[0037] Also, while specific exemplary embodiments in the present application describe padlock secured group lockboxes and lockout stations for storing multiple padlocks and keys for locking out and unlocking portions of a system or equipment, one or more of the features described herein may additionally or alternatively be applied to other types of locking
enclosures (e.g., safes, mailboxes, drop boxes, etc.) and to other types of locking mechanisms (e.g., combination padlocks, electronic locks, RFID locks, built-in key operated locks, combination locks, remote controlled locks, biometric operated locks, etc.). Likewise, while specific exemplary embodiments in the present application describe a document display apparatus for displaying documents related to a system lockout (e.g., permits, work orders, etc.), one or more of the features described herein may additionally or alternatively be applied to display arrangements for other types of documents or other articles or materials.

According to an aspect of the present application, a locking enclosure is provided with multiple locking points, such that the cooperation of multiple authorized users may be required to open the enclosure. When one or more locking points of the enclosure are secured in a locked condition, each of the one or more locking points must be unlocked or released to open the enclosure. In one such embodiment, a locking enclosure may be provided with multiple sets of lock apertures, with the locking enclosure being configured to be secured in a closed condition when a padlock shackle or other such locking member (e.g., a cable lock, pin lock, zip tie) is secured through at least one of the sets of lock apertures.

As one example, a lockbox may be provided with a body or housing and a lid or access door movable (e.g., pivoting hinged movement, sliding movement, or fully removable) between a closed position securing one or more items within the lockbox, and an open position permitting access to, or the depositing of, items in the lockbox. The lid may be secured in the closed position by corresponding lock apertures in the body and in the lid. When a shackle (or other such locking member) is inserted through the corresponding body and lid apertures, movement of the apertured lid portion with respect to the apertured body portion is restricted to secure the lid in the closed position.

Multiple user lockboxes having lock apertures in the side wall portions of the body and the top wall portion of the lid may provide for multiple lock points for multiple user lockout of the lockbox, to restrict access to the contents of the lockbox. An exemplary embodiment of a multiple user lockbox with side and top wall lock apertures is disclosed in co-owned U.S. Patent No. 7,360,380, the entire disclosure of which is incorporated herein by reference.

In some applications, the use of several multiple user lockboxes may be desirable for separate lockout procedures involving multiple systems in a factory or other
setting. In such applications, it may be desirable to provide lockboxes that may be stacked on top of each other when in a lockout condition (i.e., with padlocks secured through one or more of the sets of lock apertures), for example, to maintain the lockboxes in a smaller space, or organized in separate stacks for different areas or systems within a plant. Where the lock apertures are arranged such that the installed padlock shackle extends above the top wall of the lid (e.g., through an aperture in the top wall portion of the lid), the padlock shackle may interfere with or prevent stacking of two or more lockboxes. Further, the angled orientation of a padlock installed through aligned apertures in the lid top wall and body side wall may result in the padlock being angled laterally outward from the lockbox, resulting in an increased footprint width of the locked out lockbox. Additionally, padlock shackles installed through aligned apertures in the lid top wall and body side wall extend into the lockbox enclosure, potentially reducing the storage space within the lockbox.

According to an aspect of the present application, a lockbox may be provided with body and lid lock apertures arranged to facilitate stacking of the locked out lockboxes, reduce footprint width or height of the locked out lockboxes, and/or maximize storage enclosure space within the locked out lockbox. In one embodiment, lid lock apertures are disposed on a lid flange extending outward from a bottom edge portion of the lid, in alignment with body lock apertures disposed on a body flange extending outward from the base of an upper wall portion of the body. In an exemplary embodiment, the lid and body flanges may be recessed or vertically offset from the top wall of the lid, such that when a padlock is secured to the aligned lid and body lock apertures of the lid and body flanges, the padlock does not extend above the top surface of the lid.

Figures 1-11 illustrate various views of an exemplary lockbox 100 in accordance with the present application. The lockbox 100 includes a housing or body 120 and an access door or lid 130 pivotally connected to the body 120 for pivoting movement between a closed position (Figures 1 and 3) and an open position (Figure 4). The body 120 includes left side, right side, front, and rear walls 121a, 121b, 121c, 121d extending from a bottom wall 121e to define a storage enclosure 123. The storage enclosure may be sized to retain a variety of items. In one embodiment the storage enclosure is sized to closely retain (e.g., with minimal extra space to limit shifting of the contents) a set of padlocks P (e.g., 25-50 padlocks) with installed keys K for use in one or more lockout devices (e.g., valve
lockouts, electrical connection lockouts, circuit breaker lockouts, etc.) in a safety lockout system. The lid 130 includes left side, right side, and front walls 131a, 131b, 131c that extend from a top wall 131d of the lid 130 to overhang upper portions 122a, 122b, 122c (see Figure 11) of the left side, right side, and front body walls 121a, 121b, 121c. While any suitable pivotal connection between the lid and the body may be utilized, in the illustrated embodiment, the lid 130 is pivotally connected to the body 120 by a hinge portion defined by pivot pins 138, 139 pivotally attaching rear portions of the left and right side lid walls 131a, 131b to the upper portions 122a, 122b of the left and right side body walls 121a, 121b. By providing this pivotal connection forward of the rear or base body wall 121d (for example, as compared to a rear hinge), the rear portion of the lid 130 does not protrude rearward of the rear body wall 121d, thereby reducing the footprint depth of the open lockbox. To provide coverage for the storage enclosure 123 rearward of the rear edge of the top lid wall 131d, the rear body wall 131d may include a forward extending flange 121f that abuts the rear edge of the top lid wall 131d when the lid 130 is in the closed and latched position.

The illustrated lockbox 100 includes left and right side lid flanges 134a, 134b extending laterally outward from bottom edges of the left and right side lid walls 131a, 131b, and left and right side body flanges 124a, 124b extending laterally outward from bottom ends of the upper portions 122a, 122b of the left and right side body walls 121a, 121b. When the lid is in the closed position, the lid flanges 134a, 134b overlie (and may, but need not, abut) the body flanges 124a, 124b, such that lock apertures 135a, 135b in the lid flanges 134a, 134b align with corresponding lock apertures 125a, 125b in the body flanges 124a, 124b to provide multiple lock points for receiving locking members (e.g., padlocks). The lock apertures may be sized to closely receive a padlock shackle, including for example shackles having cross-sectional diameters of approximately 3/16 inch, ¼ inch, 9/32 inch, 5/16 inch, 3/8 inch, and 7/16 inch, or any other suitable shackle size. The lock apertures may be coded or identified on the lockbox (e.g., by alphanumerical markings on the lid side walls 131a, 131b above each lid lock aperture 135a, 135b) to associate a lock point with a corresponding padlock or system user to which that code or designator has been assigned.

While any number of sets of lock apertures may be provided, a large number of sets of lock apertures may be desirable for applications in which a large number of workers are involved in the lockout procedures. In the illustrated embodiment, sixteen sets of lock
apertures 125a, 135a, 125b, 135b are provided for sixteen lock points, eight on each side flange. Where additional lock points are needed, a safety lockout hasp (providing multiple lock points retaining the hasp in a closed position) may be installed in one or more of the sets of lock apertures 125a, 135a, 125b, 135b. Exemplary safety lockout hasps are described in co-owned U.S. Patent No. 8,408,609, the entire disclosure of which is incorporated by reference herein.

To provide stronger, more rigid flanged portions, the body flanges 124a, 124b may include includes downward angled upper flange walls 124a-l, 124b-l and upward angled lower flange walls 124a-2, 124b-2 joined to form a V-shape in cross-section, with each body lock aperture 125a, 125b formed from aligned upper and lower holes 125a-l, 125b-l, 125a-2, 125b-2 in the upper and lower flange walls 124a-l, 124b-l, 124a-2, 124b-2. The lid flanges 134a, 134b may be oriented at a downward angle to closely overlie or abut the upper flange walls 124a-l, 124b-l.

The height of the side lid walls 131a, 131b (and the corresponding upper portions 122a, 122b of the side body walls 121a, 121b) may be selected to provide a sufficient offset of the lid flanges 134a, 134b from the top surface of the top lid wall 131d to prevent the padlock shackle S (or other locking member) from extending above the lid top wall 131d, to minimize a vertical footprint of the locked out lockbox 100. In an exemplary embodiment, this vertical offset may be at least the diameter of the lock apertures 125a, 125b, 135a, 135b, and/or at least the height of the curved upper portion of the padlock shackle intended to be used with the lockbox 100. The lateral positions of the lock apertures 125a, 125b, 135a, 135b on the body and lid flanges 124a, 124b, 134a, 134b may be selected to provide sufficient clearance for the side of the padlock body extending laterally inward from the inserted shackle leg from the side body wall 121a, 121b, such that the installed padlock P may extend substantially vertically, without being angled outward from the lockbox 100, to minimize a horizontal footprint of the locked out lockbox.

Other features may additionally or alternatively be provided to facilitate stacking and/or minimize footprint size of the locked out lockbox. For example, the lockbox 100 may be provided with a handle 140 including a handle bar 141 secured to pivotable links 142, 143 that are secured to slot-defining handle brackets 144, 145 attached to the lid top wall 131d (e.g., by welding or fasteners), such that the handle may fold flat against the lid 130.
The bottom body wall 121e may include a recessed central portion or pocket 127 (see Figures 2 and 8) that is sized and shaped to receive the flattened handle 140 of a second lockbox 100′ upon which that lockbox is stacked. Corner bosses 137 or other projections may additionally or alternatively provide clearance for the handle 140 of a lockbox upon which that lockbox is stacked, to facilitate level stacking. As another example, as shown in Figure 9, different sized lockboxes 100, 100′ (e.g., to contain different quantities of padlocks or other items) may be provided in differing heights, but with the same length and width dimensions, to facilitate stacking of these different sized lockboxes.

To hold the lid in the closed position, even when the lockbox is not locked out, the lid may be provided with a latch portion that interlocks with a corresponding latch portion of the body. While many different types of latching arrangements may be used, in the illustrated embodiment, the upper portion 122c of the front body wall 121c is provided with a latching tab 126 that is received through a corresponding slot 136 in the front lid wall 131c when the lid 130 is in a latched position, thereby preventing pivoting movement of the lid 130 to the open position. To release the lid 130 for pivoting movement to the open position, the lid is slideable in a forward direction to disengage the slot 136 in the front lid wall 131c from the latching tab 126. While many different lid sliding mechanisms may be utilized, in the illustrated embodiment, the pivot pins 138, 139 are slideably secured in side slots 128, 129 (see Figures 10 and 11) disposed in the upper portions 122a, 122b of the left and right side body walls 121a, 121b. When one or more padlocks are secured through any of the aligned body and lid lock apertures 125a, 125b, 135a, 135b, the lid 130 is blocked from sliding forward to the unlatched position. Additionally, as shown, the latching tab 126 may include a lock aperture 126a to provide an additional lock point for the lockbox. When a padlock is secured to the lock aperture 126a of the latching tab 126 (i.e., by inserting the padlock shackle through the lock aperture), the lid 130 is blocked from sliding forward to the unlatched position. This front lock point may be used by a supervisor or primary operator, as the use of this lock point may provide the most visibility and may be most easily distinguishable from other lock point use.

Other mechanisms may additionally or alternatively be utilized to hold the lid in the closed position when the lockbox is not locked out. Figures 12 and 13 illustrate another embodiment of a lockbox 200 with many features similar to the features of the lockbox 100 of
Figures 1-11, but with the latching tab 126 and slot 136 replaced with a conventional buckle-type latch 260 attached to the front body wall 221c, and including a loop portion 263 that extends over a hook portion 261 secured to the lid front wall 231c, to latch the lid 230 with the body 220. A lever portion 264 of the buckle 260 is pivotable between a first position securing the loop portion 263 over the hook member 261, and a second position permitting disengagement of the loop portion 263 from the hook member 261. As shown, the buckle 260 further includes a hasp portion 265 that is received through a slot 266 in the lever portion 264 when the lever portion is in the first position. Insertion of a locking member (e.g., a shackle of a padlock) through a lockout aperture 267 in the hasp portion 265 secures the lever portion 264 in the first position to prevent disengagement of the loop portion 263 from the hook member 261. This front lock point may be used by a supervisor or primary operator, as the use of this lock point may provide the most visibility and may be most easily distinguishable from other lock point use. When the locking member is withdrawn from the lockout aperture 267, the lever portion 264 is pivotable to the second position to permit disengagement of the loop portion 263 from the hook member 261.

[0051] To provide additional secure retention of the lid in the closed position when the lockbox is not locked out (e.g., in case the buckle is not properly latched), the lid may be provided with one or more tabs (or other suitable interlocking features) that interlock with one or more slots (or other suitable interlocking features) in the lockbox body when the lid is in a closed and interlocked position, thereby preventing pivoting movement of the lid to the open position. In the illustrated embodiment of Figures 12 and 13, as shown in the side cross-sectional view of Figure 13, the front wall 231c of the lid 230 is provided with inward or rearward extending latching tabs 236 that extend through aligned slots 226 in the front body wall 221c when the lid 230 is in the closed and interlocked position, thereby preventing pivoting movement of the lid 230 to the open position. To release the lid 230 for pivoting movement to the open position, the lid is slideable in a forward direction to disengage the slots 226 in the front body wall 221c from the latching tabs 236. While many different lid sliding mechanisms may be utilized, in the illustrated embodiment, similar to the embodiment of Figures 1-11, pivot pins 238, 239 are slideably secured in side slots 228, 229 disposed in the upper portions 222a, 222b of the left and right side body walls 221a, 221b. When one or more padlocks are secured through any of the aligned body and lid lock apertures 225a, 225b,
235a, 235b, and/or a padlock is secured through the buckle hasp 265, the lid 230 is blocked from sliding forward to the unlatched position.

Features may be provided to resist loose sliding movement of the lid from the latching position to the unlatched position. For example, as shown in the embodiment of Figures 1-11, a spring-loaded latch flap 156 may be provided on the lid above the latch slot 136. When the lid 130 is in the closed and latched position, the latch flap 156 is pivoted to an upward, spring-loaded position to permit insertion of the latching tab 126 through the slot 136. In this position, the latch flap 156 applies a downward force against the latching tab 126, to resist sliding movement of the lid 130 to the unlatched position when a padlock has not been installed through any of the lock apertures, thus preventing the lid 130 from opening, for example, when the lockbox 100 is being carried by the handle 140. As another example, shown in the embodiment of Figures 12 and 13, the latching tabs 236 may be provided with notched or ramped surfaces that engage the edges of the slots 226 to resist loose sliding movement of the lid 230.

Still other features may be additionally or alternatively provided with a lockbox in accordance with the present application. For example, as shown, the lockbox 100, 200 may be provided with a separate compartment or container 150, 250 positioned in the storage enclosure 123, 223 below a slot 151, 251 in the lid 130, 230 (when the lid is in the latched position), to receive and retain small items (e.g., padlock keys) inserted through the slot. The container 150, 250 may be attached to the front body wall 121c, 221c in any suitable manner. In the illustrated embodiments, a container retaining wall 170, 270 (Figures 11 and 13) is attached within the storage enclosure 123, 223 (e.g., by welding or fasteners) to form a cavity 171, 271 sized to receive the container 150, 250. The front body wall 121c, 221c may include a transparent panel 152, 252 to provide visibility of the contents of the container 150, 250 or storage enclosure 123, 223. A sleeve portion 153 may also be attached to the inside of the front body wall 121c (and may, for example, be integral with the container 150) to retain a card presenting identification, status, or other written information. A more permanent identification tag 154 may also be attached (e.g., by welding, rivets, or other fasteners) to the front body wall 121c.

According to another aspect of the present application, a lockable enclosure is provided with a housing defining an internal cavity and an access door connected to a side wall of the housing at a hinge portion and pivotable about the hinge portion between open and closed positions to permit or restrict access to the internal cavity. While the housing and access door may be provided in many configurations, in one embodiment, a rear wall of the housing is mountable to an external structure (e.g., an interior or exterior building wall), and a lower edge portion of the access door is hingedly connected to a lower side wall of the housing, for downward and outward pivoting movement of the access door from the closed position to the open position. In other embodiments, the housing may remain detached from any external structure (e.g., as a portable lockbox) and/or the access door may be hingedly connected to another of the housing side walls (e.g., upper, left, or right side wall).

To selectively hold the access door in the closed position or permit pivoting movement of the access door to the open position, the access door may be slideable, along a longitudinal axis defined by the hinge portion, between an interlocking position in which an interlock portion of the access door engages a corresponding interlock portion of the housing to hold the access door in the closed position, and a release position in which the access door interlock portion disengages from the housing interlock portion to permit pivoting movement of the access door from the closed position to the open position.

Figures 17-19 illustrate an exemplary lockable enclosure 300 including a housing 310 having a rear wall 311 and first (lower), second (upper), third (left) and fourth (right) side walls 312, 313, 314, 315 extending forward from the rear wall 311 to a front end to define a storage cavity 305 between the side walls. As shown in Figure 19, the rear wall may include mounting holes to receive fasteners for mounting the rear wall to an external wall surface or other such structure. An access door 330 is hingedly connected to an upward extending flange portion 316 of the first, lower side wall 312 by a hinge 308 extending along a longitudinal axis X, for pivoting movement about the longitudinal axis X between a closed position (Figures 17 and 18) and an open position (Figure 19). The exemplary hinge 308 includes a hinge portion 338 of the access door 330 that is connected with a housing hinge portion 318 on the lower wall flange portion 316 by a hinge pin 328 extending through the hinge portions 318, 338.

To hold the access door 330 in the closed position, the access door includes
longitudinally extending tabs 339 that are received in, and interlock with, corresponding holes or slots 319 in a downward extending flange portion 317 of the second, upper side wall 313. To release the access door 330 for pivoting movement to the open position, the access door is slideable along the longitudinal axis X to a release position in which the tabs 339 fully align with the slots 319 to permit withdrawal of the tabs from the slots during pivoting movement of the access door to the open position. To permit longitudinal sliding movement of the access door 330, longitudinal gaps 325 are provided between the housing hinge portion 318 and the access door hinge portion 338, thereby permitting sliding movement of the access door hinge portion on the hinge pin 328.

According to another aspect of the present application, the access door may be securable in the closed, interlocking position by one or more locking features. While the locking feature or features may include a variety of elements and mechanisms, in one embodiment, one or more lockout apertures are provided on at least one of the access door and the housing, such that insertion of a locking member (e.g., a padlock shackle) through one of the one or more lockout apertures prevents sliding movement of the access door from the interlocking position to the release position. In the illustrated embodiment of Figures 17 - 19, a series of door lockout apertures 321 are disposed on an end portion 337 of the access door 330, opposite the hinge portion 338. The door lockout apertures 321 align with a corresponding series of housing lockout apertures 322, disposed on the upper wall flange portion 317, when the access door 330 is in the closed, interlocking position, as shown in Figure 17.

In the illustrated example, the end portion 337 of the access door 330 includes a V-shaped rail portion 323 having upper and lower lateral portions 323a, 323b having a series of upper and lower holes 321a, 321b that align to define the door lockout apertures 321. The upper wall flange portion 317 of the housing 310 includes a V-shaped rail portion 324 having upper and lower lateral portions 324a, 324b with a series of upper and lower holes 322a, 322b that align to define the housing lockout apertures 322. When the access door 330 is in the closed, interlocking position, the housing rail portion 324 is received between the upper and lower lateral portions 323a, 323b of the door rail portion 323 for alignment of the housing lockout apertures 322 with the door lockout apertures 321. When a locking member (e.g., a padlock shackle) is inserted through an aligned pair of door and housing lockout
apertures 321, 322, as shown in Figure 17A, sliding movement of the access door 330 along
the longitudinal axis X to the release position (Figure 18) is prevented. These aligned pairs of
lockout apertures 321, 322 may be identified by indicia (e.g., numbers) engraved or otherwise
marked on the enclosure (e.g., on the housing upper wall, or on the access door, as shown).

As shown, a latch mechanism may be provided, in addition to or instead of the
pairs of door and housing lockout apertures, to secure the access door in the closed,
interlocking position. In one embodiment, a latch mechanism is operable to latch the access
door with a side wall (e.g., the left side wall) of the housing when the access door is in the
closed and interlocking position. While many different types of latch mechanisms may be
utilized, in the illustrated embodiment, the latch mechanism 340 includes a hook member 341
affixed (e.g., fastened, welded) to the third or left side wall 314, and a buckle 342 affixed to
the access door 330 for latching engagement with the hook member 341. In the illustrated
embodiment, the buckle 342 includes a loop portion 343 that extends over the hook member
341 to latch the access door 330 with the left side wall 314, thereby holding the access door in
the closed and interlocking position. A lever portion 344 of the buckle 342 is pivotable
between a first position (Figure 17) securing the loop portion 343 over the hook member 341,
and a second position (Figure 18) permitting disengagement of the loop portion 343 from the
hook member 341. As shown, the buckle 342 further includes a hasp portion 345 that is
received through a slot 346 in the lever portion 344 when the lever portion is in the first
position. Insertion of a locking member (e.g., a shackle of a padlock P) through a lockout
aperture 347 in the hasp portion 345, as shown in Figure 17A, secures the lever portion 344 in
the first position to prevent movement of the access door 330 to the release position. When
the locking member is withdrawn from the lockout aperture 347, the lever portion 344 is
pivotable to the second position to permit disengagement of the loop portion 343 from the
hook member 341 and sliding movement of the access door 330 along the longitudinal axis X
to the release position.

When any and all locking members are withdrawn from the aligned pairs of
lockout apertures 321, 322 and the buckle hasp lockout aperture 347 (in combination with
disengagement of the loop portion 343 from the hook member 341), the access door 330 is
slideable from the interlocking position to the release position. While the access door may be
configured for selective manual sliding movement to the release position (e.g., by a user-
applied force in the longitudinal direction), in one embodiment, the access door may be spring loaded by a spring biasing mechanism for automatic sliding of the access door along the longitudinal axis to the release position. In the illustrated embodiment, a compression spring member 326 extends around the hinge pin 328 to apply an axial outward biasing force between the housing hinge portion 318 and the access door hinge portion 338. To apply a more uniform biasing force, the spring member 326 may be disposed between washers 327, 329 disposed on the hinge pin 328.

To return the closed access door 330 to the interlocking position, the loop portion 343 of the buckle 342 is extended over the hook member 341, and the lever portion 344 is pivoted from the second position to the first position. This pivoting movement of the lever portion 344 causes the access door 330 to be axially pulled against the biasing force of the spring member 326 and back to the interlocking position.

A lockable enclosure in accordance with the present application may be provided in a variety of sizes. Figure 20 illustrates another exemplary lockable enclosure 400 including a housing 410, access door 430, and latch mechanism 440 similar to those of the lockable enclosure 300 of Figures 17-19, except with a reduced width, for example, to accommodate smaller spaces and/or lockout systems requiring fewer padlocks.

A locking enclosure as described herein may additionally or alternatively be provided with other features. For example, the upper side wall 313, 413 of the housing 310, 410 may include a slot 304, 404 for receiving smaller items, such as, for example, keys. These smaller items may be received and retained in a separate cup portion 306, 406 secured within the storage cavity 305, 405, and, like a central panel portion 331, 431 of the access door 330, 430, may be transparent for viewing of the contents of the cup portion 306, 406.

To uniformly retain padlocks or other items within the storage cavity, as shown in the embodiment of Figures 17-19, a series of hanging posts 307 may be affixed to the rear wall 311 of the housing 310 to hang or otherwise support padlocks P or other items within the storage cavity 305. Alternatively, as shown in the embodiment of Figure 20, a separate padlock retainer or carrier 450 may be secured within the storage cavity 405 to removably retain multiple padlocks, for example, to facilitate transporting of a plurality of padlocks P to the lockable enclosure 400. As shown, the padlock carrier 450 may be provided with a series of apertures 451 through which multiple padlocks may be secured. The padlock carrier 450
may be secured within the storage cavity using any suitable arrangement. In the exemplary
embodiment, the lockable enclosure 400 includes outwardly biased flexible clips 407 attached
to the rear wall 411 of the housing 410, and insertable through complementary shaped
mounting holes 457 in the carrier 450 to hold the carrier in place within the housing 410. The
carrier may additionally be provided with a series of retention clips 453 aligned with the
apertures 451 for retaining a key, lockout tag, or other accessory associated with the padlock
secured to the corresponding aperture 451. The carrier 450 may be provided with a molded
handle 455 to facilitate user carrying of the carrier.

[0067] According to another aspect of the present application, a document display
apparatus is provided, independently or in combination with a lockable enclosure (e.g., the
lockable enclosures 300, 400 of Figures 17 and 20 as described above), for example, to
display permits, work orders, or other documents relevant to a safety lockout procedure. In
one such embodiment, a document display apparatus is provided with a wall mountable
substrate and at least one document retaining frame hingedly connected to the wall mountable
substrate for pivoting movement of the document retaining frame between a document display
position in which a rear surface of the at least one document retaining frame abuts the wall
mountable substrate, and a document access position in which the rear surface of the
document retaining frame is exposed, for example, for removal or replacement of a document
secured to the document retaining frame. A document mounting feature is connected with the
at least one document retaining frame, and is configured to releasably secure a document to
the rear surface of the document retaining frame, against a transparent central portion of the
document retaining frame. A frame attachment feature is assembled with one of the wall
mountable substrate and the at least one document retaining frame, and is movable between a
frame securing position securing a side wall portion of the at least one document retaining
frame to the wall mountable substrate, and a frame releasing position permitting pivoting
move ment of the at least one document retaining frame from the document display position
to the document access position.

[0068] Figures 21 and 22 illustrate an exemplary document display apparatus 500
including a wall mountable substrate 510 having lower mounting holes 511 and upper
mounting slots 512 for mounting the substrate 510 to an external wall surface. The substrate
510 may include a forward extending bottom flange portion 513 for mounting to a second
wall mounted apparatus, such as, for example, the lockable enclosure 300 of Figures 17 - 19 (as shown in Figure 24), or a second document display apparatus 500. First and second document retaining frames 520, 530 are hingedly connected to the wall mountable substrate 510 at hinges 521, 531 disposed along adjacent first side wall portions 522, 532 of the document retaining frames. The document retaining frames are pivotable about these hinges 521, 531 between a document display position (Figure 21) in which rear surfaces 523, 533 of the document retaining frames abut the wall mountable substrate 510, and a document access position (Figure 22), in which the rear surfaces of the document retaining frames are exposed, for example, for removal or replacement of documents secured to the document retaining frames. The document retaining frames include central transparent panels 525, 535 (e.g., glass, plastic) surrounded by first (inner lateral), second (outer lateral), third (upper), and fourth (lower) side wall portions 522, 532, 524, 534, 526, 536, 528, 538.

[0069] A document display apparatus, in accordance with the present application, may include any number of document retaining frames. Figure 23 illustrates another exemplary document display apparatus 600 including a wall mountable substrate 610 similar to the substrate 510 of the apparatus 500 of Figures 21 and 22, except sized to accommodate a single document retaining frame 620 hingedly connected to the substrate 610, for example, for mounting to a reduced width lockable enclosure, such as, for example, the lockable enclosure 400 of Figure 20 (as shown in Figure 25).

[0070] The document retaining frames 520, 530, 620 may be provided with one or more document mounting features (e.g., clips, fasteners, adhesive, magnets) to secure a document against a rear surface of the central transparent panels 525, 535, 625. In the illustrated embodiments, a flexible clip portion 527, 537, 627 is attached to the upper wall portion 526, 536, 626 to secure a document against the rear surfaces.

[0071] The document retaining frames 520, 530, 620 may be provided with one or more frame attachment features (e.g., clips, fasteners, tabs, knobs, detents) assembled with one of the wall mountable substrate 510, 610 and the document retaining frames 520, 530, 620 with the frame attachment features being movable between a frame securing position securing a side wall portion of the at least one document retaining frame to the wall mountable substrate, and a frame releasing position permitting pivoting movement of the at least one document retaining frame from the document display position to the document
access position. In the illustrated embodiments, pivotable eccentric knobs 519, 619 are connected to the wall mountable substrate 510, 610 and are receivable through complementary shaped slots 529, 539, 629 in the document retaining frames 520, 530, 620. In a frame securing position, the knobs 519, 619 are misaligned with the slots 529, 539, 629 to block pivoting movement of the document retaining frames 520, 530, 620 from the document display position. In a frame releasing position, the knobs 519, 619 are aligned with the slots 529, 539, 629 to permit pivoting movement of the document retaining frames 520, 530, 620 from the document display position to the document access position.

A document display apparatus as described herein may additionally or alternatively be provided with other features. For example, a handle portion 516, 616 may be attached to a forward extending upper flange portion 515, 615, for example, to carry the document display apparatus 500, 600 (and, if so attached, an attached lockable enclosure 300, 400) to another location. Tags or labels 518, 618 (e.g., rewritable tags) may be provided on the mountable substrate 510, 610, above the document retaining frames 520, 530, 620 for example, to identify the types of documents to be retained.

While various inventive aspects, concepts and features of the inventions may be described and illustrated herein as embodied in combination in the exemplary embodiments, these various aspects, concepts and features may be used in many alternative embodiments, either individually or in various combinations and sub-combinations thereof. Unless expressly excluded herein all such combinations and sub-combinations are intended to be within the scope of the present inventions. Still further, while various alternative embodiments as to the various aspects, concepts and features of the inventions—such as alternative materials, structures, configurations, methods, alternatives as to form, fit and function, and so on—may be described herein, such descriptions are not intended to be a complete or exhaustive list of available alternative embodiments, whether presently known or later developed. Those skilled in the art may readily adopt one or more of the inventive aspects, concepts or features into additional embodiments and uses within the scope of the present inventions even if such embodiments are not expressly disclosed herein. Additionally, even though some features, concepts or aspects of the inventions may be described herein as being a preferred arrangement or method, such description is not intended to suggest that such feature is required or necessary unless expressly so stated. Still further,
exemplary or representative values and ranges may be included to assist in understanding the present disclosure; however, such values and ranges are not to be construed in a limiting sense and are intended to be critical values or ranges only if so expressly stated. Moreover, while various aspects, features and concepts may be expressly identified herein as being inventive or forming part of an invention, such identification is not intended to be exclusive, but rather there may be inventive aspects, concepts and features that are fully described herein without being expressly identified as such or as part of a specific invention. Descriptions of exemplary methods or processes are not limited to inclusion of all steps as being required in all cases, nor is the order that the steps are presented to be construed as required or necessary unless expressly so stated.
We claim:

1. A lockable enclosure for secure storage of one or more items, the lockable enclosure comprising:
   a housing including first, second, third, and fourth side walls each extending forward from a rear wall to an outer end to define a storage cavity therebetween; and
   an access door having a hinge portion connected with the first side wall, the access door being pivotable about a longitudinal axis of the hinge portion between a closed position blocking access to the cavity and an open position permitting access to the cavity;
   wherein when the access door is in the closed position, the hinge portion of the access door is slideable for sliding movement of the access door between a latching position in which a first latch portion of the access door engages a corresponding second latch portion of the housing to secure the access door in the closed position, and a release position in which the first latch portion disengages from the second latch portion to permit pivoting movement of the access door from the closed position to the open position;
   wherein the access door further comprises at least one locking feature configured to secure the closed access door in the latching position when the at least one locking feature is in a locked condition and to permit sliding movement of the closed access door to the release position when the at least one locking feature is in an unlocked condition.

2. The lockable enclosure of claim 1, wherein the hinge portion is slideable along the longitudinal axis.

3. The lockable enclosure of claim 1, wherein the hinge portion is slideable in a direction perpendicular to the longitudinal axis.

4. The lockable enclosure of claim 1, wherein the housing comprises a lockbox body and the access door comprises a lid.

5. The lockable enclosure of claim 4, wherein the lid includes front, left and right side lid walls extending downward from a top lid wall to a lower edge to overhang upper portions of the second, third and fourth side housing walls when the lid is in the closed position.
6. The lockable enclosure of claim 5, wherein the lid includes a first lid flange extending laterally outward from one of the left and right side lid walls, and the body includes a corresponding first body flange extending laterally outward from an outer end of a corresponding one of the second and third side housing walls, wherein when the lid is in the closed position, a first lid lock aperture in the first lid flange aligns with a first body lock aperture in the first body flange, such that insertion of a padlock shackle through the first lid lock aperture and the first body lock aperture prevents movement of the lid with respect to the body.

7. The lockable enclosure of claim 6, wherein the first lid flange is offset from the top lid wall by a distance greater than a diameter of the first lid lock aperture.

8. The lockable enclosure of any of claims 6 and 7, wherein the lid further includes a second lid flange extending laterally outward from the lower edge of the other of the left and right side lid walls, and the body further includes a second body flange extending laterally outward from an outer end of a corresponding one of the second and third side housing walls, wherein when the lid is in the closed position, a second lid lock aperture in the second lid flange aligns with a second body lock aperture in the second body flange, and wherein when the lid is in the closed position, insertion of a padlock shackle through the second lid lock aperture and the second body lock aperture prevents sliding movement of the lid to the release position.

9. The lockable enclosure of any of claims 6-8, wherein the first lid flange includes a plurality of lid lock apertures including the first lid lock aperture, and the first body flange includes a plurality of body lock apertures including the first body lock aperture, and wherein when the lid is in the closed position, each of the plurality of lid lock apertures aligns with a corresponding one of the plurality of body lock apertures, such that when the lid is in the closed position, insertion of a padlock shackle through any one of the plurality of lid lock apertures and the corresponding one of the body lock apertures prevents sliding movement of the lid from the latched position to the release position.
10. The lockable enclosure of any of claims 5-9, wherein the first latch portion includes a slot in the front lid wall, and the second latch portion includes a hasp extending from the fourth housing wall and received through the slot when the lid is in the latched position.

11. The lockable enclosure of any of claims 5-9, wherein the second latch portion includes a slot in the fourth housing wall, and the first latch portion includes a tab extending from an interior surface of the front lid wall and received through the slot when the lid is in the latched position.

12. The lockable enclosure of any of claims 5-11, wherein the hinge portion comprises first and second pivot pins slideable in first and second side slots to permit sliding movement of the lid between the latched and unlatched positions.

13. The lockable enclosure of claim 12, wherein the first and second pivot pins are secured to the left and right side lid walls, and the first and second side slots are disposed in upper portions of the second and third side housing walls.

14. The lockable enclosure of any of claims 5-13, wherein the lid includes a handle extending from an upper surface of the lid top wall.

15. The lockable enclosure of claim 14, wherein the base housing wall includes a recessed bottom surface sized to receive a handle of another lockable enclosure when the lockable enclosure is stacked on top of the other lockable enclosure.

16. The lockable enclosure of any of claims 5-15, wherein the lid top wall includes a slot for receiving an item into the housing when the lid is in the closed position.

17. The lockable enclosure of claim 16, further comprising a compartment secured to at least one of the housing walls and positioned to align with the lid top wall slot when the lid is in the closed position, to receive an item inserted through the lid top wall slot, and to retain
the inserted item separate from a remaining portion of the storage cavity.

18. The lockable enclosure of claim 17, wherein the compartment is secured to the fourth wall of the housing.

19. The lockable enclosure of any of claims 6-18, wherein the first body flange includes a downward angled upper flange wall and an upward angled lower flange wall joined to form a V-shape in cross-section, wherein the first body lock aperture includes aligned first holes in the upper and lower flange walls.

20. The lockbox of claim 19, wherein the first lid flange is oriented for abutment with the upper flange wall of the first body flange when the lid is in the closed position.

21. The lockable enclosure of any of claims 1 and 2, wherein the first latch portion includes at least one longitudinally extending tab and the second latch portion includes at least one slot receiving a corresponding one of the at least one longitudinally extending tab when the access door is in the latching position.

22. The lockable enclosure of any of claims 1, 2, and 21, wherein the locking feature comprises at least one lockout aperture carried by the access door, wherein when the access door is in the closed and latching position, insertion of a padlock shackle through any of the at least one lockout aperture prevents sliding movement of the access door from the latching position to the release position.

23. The lockable enclosure of any of claims 1, 2, 21, and 22, wherein the locking feature comprises at least one lockout aperture in the access door that aligns with at least one lockout aperture in the first side wall, such that insertion of a padlock shackle through the aligned access door and upper wall lockout apertures prevents sliding movement of the access door from the latching position to the release position.

24. The lockable enclosure of claim 23, wherein the at least one access door lockout
aperture comprises a plurality of access door lockout apertures and the at least one first wall lockout aperture comprises a plurality of upper wall lockout apertures that align with corresponding ones of the plurality of access door lockout apertures when the access door is in the closed and latching position.

25. The lockable enclosure of claim 24, wherein the plurality of upper wall lockout apertures are disposed on a flange portion of the upper wall, and the plurality of access door lockout apertures are disposed on a flange portion of the access door, with the access door flange portion abutting with the upper wall flange portion when the access door is in the closed position, for alignment of the plurality of access door lockout apertures with the plurality of upper wall lockout apertures when the access door is in the latching position.

26. The lockable enclosure of claim 25, wherein the access door flange portion comprises upper and lower lateral portions forming a V in cross-section, wherein each of the plurality of access door lockout apertures comprises aligned holes in the upper and lower lateral portions of the access door flange portion.

27. The lockable enclosure of any of claims 25 and 26, wherein the upper wall flange portion comprises upper and lower lateral portions forming a V in cross-section, wherein each of the plurality of upper wall lockout apertures comprises aligned holes in the upper and lower lateral portions of the access door flange portion.

28. The lockable enclosure of any of claims 1, 2, and 21-27, further comprising a latch mechanism operable to latch the access door with the first side wall when the access door is in the closed and latching position.

29. The lockable enclosure of claim 28, wherein the latch mechanism comprises a hook member affixed to the third side wall, and a buckle affixed to the access door, the buckle including a loop portion for engaging the hook portion to latch the access door with the third side wall.
30. The lockable enclosure of claim 29, wherein the locking feature comprises a lever portion of the buckle that is pivotable between a first position holding the loop portion in engagement with the hook portion, and a second position permitting disengagement of the loop portion from the hook portion.

31. The lockable enclosure of claim 30, wherein the locking feature further comprises a hasp portion of the buckle that defines a lockout aperture, wherein insertion of a padlock shackle through the lockout aperture blocks movement of the lever portion from the first position to the second position.

32. The lockable enclosure of any of claims 30 and 31, wherein when the access door is in the closed and release positions, placement of the loop portion over the hook portion and movement of the lever portion to the first position moves the access door to the latching position.

33. The lockable enclosure of any of claims 1, 2, and 21-32, further comprising a spring biasing mechanism configured to automatically move the closed access door from the latching position to the release position when the locking feature is in the unlocked condition.

34. The lockable enclosure of claim 33, wherein the spring biasing mechanism comprises a compression spring disposed between the access door hinge portion and a housing hinge portion affixed to the lower wall.

35. The lockable enclosure of claim 34, wherein the housing hinge portion comprises a hinge pin extending through the compression spring and defining the longitudinal axis.

36. A lockbox for secure storage of one or more items, the lockbox comprising:
   a body including front, rear, and first and second side body walls each extending upward from a bottom body wall to an upper edge to define a storage enclosure therebetween, and a first body flange extending laterally outward from a bottom end of an upper portion of the first body side wall; and
a lid connected to the body and pivotable between a closed position blocking access to the enclosure and an open position permitting access to the enclosure, the lid including front and first and second side lid walls extending downward from a top lid wall to a lower edge to overhang upper portions of the front and first and second side body walls when the lid is in the closed position, and a first lid flange extending laterally outward from the lower edge of the first lid side wall;

wherein when the lid is in the closed position, a first lid lock aperture in the first lid flange aligns with a first body lock aperture in the first body flange, such that insertion of a padlock shackle through the first lid lock aperture and the first body lock aperture prevents movement of the lid with respect to the body.

37. The lockbox of claim 36, wherein the first lid flange is offset from the top wall by a distance greater than a diameter of the first lid lock aperture.

38. The lockbox of any of claims 36 and 37, wherein the lid further includes a second lid flange extending laterally outward from the lower edge of the second lid side wall, and the body further includes a second body flange extending laterally outward from a bottom end of the upper portion of the second body side wall, such that when the lid is in the closed position, a second lid lock aperture in the second lid flange aligns with a second body lock aperture in the second body flange, and wherein when the lid is in the closed position, insertion of a padlock shackle through the second lid lock aperture and the second body lock aperture prevents movement of the lid with respect to the body.

39. The lockbox of any of claims 36-38, wherein the first lid flange includes a plurality of lid lock apertures including the first lid lock aperture, and the first body flange includes a plurality of body lock apertures including the first body lock aperture, and wherein when the lid is in the closed position, each of the plurality of lid lock apertures aligns with a corresponding one of the plurality of body lock apertures, such that when the lid is in the closed position, insertion of a padlock shackle through any one of the plurality of lid lock apertures and the corresponding one of the body lock apertures prevents movement of the lid with respect to the body.
40. The lockbox of any of claims 36-39, wherein when the lid is in the closed position, the lid is slideable between a latched position in which the lid is secured against pivoting movement to the open position and an unlatched position in which the lid is permitted to pivot to the open position, wherein insertion of a padlock shackle through the first lid lock aperture and the first body lock aperture prevents sliding movement of the lid from the latched position to the unlatched position.

41. The lockbox of claim 40, wherein the body includes a body latch portion and the lid includes a lid latch portion that interlocks with the body latch portion when the lid is in the latched position to prevent pivoting movement of the lid to the open position.

42. The lockbox of claim 41, wherein the lid latch portion includes a slot in the front lid wall, and the body latch portion includes a hasp extending from the front body wall and received through the slot when the lid is in the latched position, wherein insertion of a padlock shackle through the hasp prevents sliding movement of the lid from the latched position to the unlatched position.

43. The lockbox of claim 42, wherein the body latch portion includes a slot in the front body wall, and the lid latch portion includes a tab extending from an interior surface of the front lid wall and received through the slot when the lid is in the latched position.

44. The lockbox of any of claims 40-43, wherein the lid is pivotably connected to the body by first and second pivot pins slideable in first and second side slots to permit sliding movement of the lid between the latched and unlatched positions.

45. The lockbox of claim 44, wherein the first and second pivot pins are secured to the first and second side lid walls, and the first and second side slots are disposed in the upper portions of the first and second side body walls.

46. The lockbox of any of claims 36-45, wherein the lid includes a handle extending from
an upper surface of the lid top wall.

47. The lockbox of claim 46, wherein the bottom body wall includes a recessed bottom surface sized to receive a handle of another lockbox when the lockbox is stacked on top of the other lockbox.

48. The lockbox of any of claims 36-47, wherein the lid top wall includes a slot for receiving an item into the lockbox when the lid is in the closed position.

49. The lockbox of claim 48, further comprising a compartment secured to at least one of the body walls and positioned to align with the lid top wall slot when the lid is in the closed position, to receive an item inserted through the lid top wall slot, and to retain the inserted item separate from a remaining portion of the storage enclosure.

50. The lockbox of claim 49, wherein the compartment is secured to the body front wall.

51. The lockbox of any of claims 36-50, wherein the first body flange includes a downward angled upper flange wall and an upward angled lower flange wall joined to form a V-shape in cross-section, wherein the first body lock aperture includes aligned first holes in the upper and lower flange walls.

52. The lockbox of claim 51, wherein the first lid flange is oriented for abutment with the upper flange wall of the first body flange when the lid is in the closed position.

53. A lockbox for secure storage of one or more items, the lockbox comprising:
   a body including front, rear, and first and second side body walls each extending upward from a bottom body wall to an upper edge to define a storage enclosure therebetween; and
   a lid connected to the body and pivotable between a closed position blocking access to the enclosure and an open position permitting access to the enclosure, the lid including front and first and second side lid walls extending downward from a top lid wall to a lower edge to
overhang upper portions of the front and first and second side body walls when the lid is in the closed position;

wherein when the lid is in the closed position, the lid is slideable between a latched position in which the lid is secured against pivoting movement to the open position and an unlatched position in which the lid is permitted to pivot to the open position;

wherein when the lid is in the latched position, a first lid lock aperture in the lid aligns with a first body lock aperture in the body, such that insertion of a padlock shackle through the first lid lock aperture and the first body lock aperture prevents sliding movement of the lid from the latched position to the unlatched position; and

wherein the lid is pivotably connected to the body by first and second pivot pins slideable in first and second side slots to permit sliding movement of the lid between the latched and unlatched positions.

54. The lockbox of claim 53, wherein the first lid lock aperture is disposed on a first lid flange extending laterally outward from the lower edge of the first lid side wall, and the first body lock aperture is disposed on a first body flange extending laterally outward from a bottom end of the upper portion of the first body side wall.

55. The lockbox of claim 54, wherein the first lid flange is offset from the top wall by a distance greater than a diameter of the first lid lock aperture.

56. The lockbox of any of claims 54 and 55, wherein the lid further includes a second lid flange extending laterally outward from the lower edge of the second lid side wall, and the body further includes a second body flange extending laterally outward from a bottom end of the upper portion of the second body side wall, such that when the lid is in the closed position, a second lid lock aperture in the second lid flange aligns with a second body lock aperture in the second body flange, and wherein when the lid is in the closed position, insertion of a padlock shackle through the second lid lock aperture and the second body lock aperture prevents sliding movement of the lid from the latched position to the unlatched position.

57. The lockbox of any of claims 54-56, wherein the first lid flange includes a plurality of
lid lock apertures including the first lid lock aperture, and the first body flange includes a plurality of body lock apertures including the first body lock aperture, and wherein when the lid is in the closed position, each of the plurality of lid lock apertures aligns with a corresponding one of the plurality of body lock apertures, such that when the lid is in the closed position, insertion of a padlock shackle through any one of the plurality of lid lock apertures and the corresponding one of the body lock apertures prevents sliding movement of the lid from the latched position to the unlatched position.

58. The lockbox of any of claims 54-57, wherein the first body flange includes a downward angled upper flange wall and an upward angled lower flange wall joined to form a V-shape in cross-section, wherein the first body lock aperture includes aligned first holes in the upper and lower flange walls.

59. The lockbox of claim 58, wherein the first lid flange is oriented for abutment with the upper flange wall of the first body flange when the lid is in the closed position.

60. The lockbox of any of claims 53-59, wherein the body includes a body latch portion and the lid includes a lid latch portion that interlocks with the body latch portion when the lid is in the latched position to prevent pivoting movement of the lid to the open position.

61. The lockbox of claim 60, wherein the lid latch portion includes a slot in the front lid wall, and the body latch portion includes a hasp extending from the front body wall and received through the slot when the lid is in the latched position, wherein insertion of a padlock shackle through the hasp prevents sliding movement of the lid from the latched position to the unlatched position.

62. The lockbox of claim 60, wherein the body latch portion includes a slot in the front body wall, and the lid latch portion includes a tab extending from an interior surface of the front lid wall and received through the slot when the lid is in the latched position.

63. The lockbox of any of claim 53-62, wherein the first and second pivot pins are secured
to the first and second side lid walls, and the first and second side slots are disposed in the upper portions of the first and second side body walls.

64. The lockbox of any of claims 53-63, wherein the lid includes a handle extending from an upper surface of the lid top wall.

65. The lockbox of claim 64, wherein the bottom body wall includes a recessed central portion sized to receive a handle of another lockbox when the lockbox is stacked on top of the other lockbox.

66. The lockbox of any of claims 53-65, wherein the lid top wall includes a slot for receiving an item into the lockbox when the lid is in the closed position.

67. The lockbox of claim 66, further comprising a compartment secured to at least one of the body walls and positioned to align with the lid top wall slot when the lid is in the closed position, to receive an item inserted through the lid top wall slot, and to retain the inserted item separate from a remaining portion of the storage enclosure.

68. The lockbox of claim 67, wherein the compartment is secured to the body front wall.

69. A safety lockout system comprising:
   at least one lockbox, each comprising:
       a body including front, rear, and first and second side body walls each extending upward from a bottom body wall to an upper edge to define a storage enclosure therebetween, and a first body flange extending laterally outward from a bottom end of the upper portion of the first body side wall and defining a plurality of body lock apertures; and
       a lid connected to the body and pivotable between a closed position blocking access to the enclosure and an open position permitting access to the enclosure, the lid including front and first and second side lid walls extending downward from a top lid wall to a lower edge to overhang upper portions of the front and first and second side
body walls when the lid is in the closed position, and a first lid flange extending
laterally outward from the lower edge of the first lid side wall and defining a plurality
of lid lock apertures that align with the plurality of body lock apertures when the lid is
in the closed position; and

at least one padlock, each including a padlock shackle securable with a lock body;

wherein when the padlock shackle of the at least one padlock is inserted through
aligned ones of the plurality of lid lock apertures and the plurality of body lock apertures and
secured with the lock body to prevent movement of the lid with respect to the body of the at
least one lockbox, the padlock is positionable entirely laterally outward of the first body side
wall and entirely below the lid top wall.

70. The safety lockout system of claim 69, wherein the at least one lockbox comprises
first and second lockboxes, the first and second lockboxes being shaped such that the second
lockbox is stackable with the first lockbox when the at least one padlock is secured to the
aligned ones of the plurality of lid lock apertures and the plurality of body lock apertures,
without interference between the at least one padlock and the second lockbox.

71. The safety lockout system of claim 70, wherein the lid of the first lockbox includes a
handle extending from an upper surface of the lid top wall, and the bottom body wall of the
second lockbox includes a recessed central portion sized to receive the handle of the first
lockbox when the second lockbox is stacked on top of the first lockbox, for substantially
uniform abutment of the upper surface of the lid top wall of the first lockbox with the bottom
surface of the body bottom wall of the second lockbox.

72. A lockable enclosure for secure storage of one or more items, the lockable enclosure
comprising:

a housing including first, second, third, and fourth side walls each extending forward
from a rear wall to a front end to define a storage cavity therebetween; and

an access door having a hinge portion connected with the first wall, the access door
being pivotable about a longitudinal axis of the hinge portion between a closed position
blocking access to the cavity and an open position permitting access to the cavity;
wherein when the access door is in the closed position, the access door is slideable along the longitudinal axis between an interlocking position in which a first interlock portion of the access door engages a corresponding second interlock portion of the first side wall to secure the access door in the closed position, and a release position in which the first interlock portion disengages from the second interlock portion to permit pivoting movement of the access door from the closed position to the open position;

wherein the access door further comprises at least one locking feature configured to secure the closed access door in the interlocking position when the at least one locking feature is in a locked condition and to permit sliding movement of the closed access door to the release position when the at least one locking feature is in an unlocked condition.

73. The lockable enclosure of claim 72, wherein the first interlock portion includes at least one longitudinally extending tab and the second interlock portion includes at least one slot receiving a corresponding one of the at least one longitudinally extending tab when the access door is in the interlocking position.

74. The lockable enclosure of any of claims 72 and 73, wherein the locking feature comprises at least one lockout aperture carried by the access door, wherein when the access door is in the closed and interlocking position, insertion of a padlock shackle through any of the at least one lockout aperture prevents sliding movement of the access door from the interlocking position to the release position.

75. The lockable enclosure of any of claims 72-74, wherein the locking feature comprises at least one lockout aperture in the access door that aligns with at least one lockout aperture in the first side wall, such that insertion of a padlock shackle through the aligned access door and upper wall lockout apertures prevents sliding movement of the access door from the interlocking position to the release position.

76. The lockable enclosure of claim 75, wherein the at least one access door lockout aperture comprises a plurality of access door lockout apertures and the at least one first wall lockout aperture comprises a plurality of upper wall lockout apertures that align with
corresponding ones of the plurality of access door lockout apertures when the access door is in the closed and interlocking position.

77. The lockable enclosure of claim 76, wherein the plurality of upper wall lockout apertures are disposed on a flange portion of the upper wall, and the plurality of access door lockout apertures are disposed on a flange portion of the access door, with the access door flange portion abutting with the upper wall flange portion when the access door is in the closed position, for alignment of the plurality of access door lockout apertures with the plurality of upper wall lockout apertures when the access door is in the interlocking position.

78. The lockable enclosure of claim 77, wherein the access door flange portion comprises upper and lower lateral portions forming a V in cross-section, wherein each of the plurality of access door lockout apertures comprises aligned holes in the upper and lower lateral portions of the access door flange portion.

79. The lockable enclosure of any of claims 77 and 78, wherein the upper wall flange portion comprises upper and lower lateral portions forming a V in cross-section, wherein each of the plurality of upper wall lockout apertures comprises aligned holes in the upper and lower lateral portions of the access door flange portion.

80. The lockable enclosure of any of claims 72-79, further comprising a latch mechanism operable to latch the access door with the first side wall when the access door is in the closed and interlocking position.

81. The lockable enclosure of claim 80, wherein the latch mechanism comprises a hook member affixed to the third side wall, and a buckle affixed to the access door, the buckle including a loop portion for engaging the hook portion to latch the access door with the third side wall.

82. The lockable enclosure of claim 81, wherein the locking feature comprises a lever portion of the buckle that is pivotable between a first position holding the loop portion in
engagement with the hook portion, and a second position permitting disengagement of the loop portion from the hook portion.

83. The lockable enclosure of claim 82, wherein the locking feature further comprises a hasp portion of the buckle that defines a lockout aperture, wherein insertion of a padlock shackle through the lockout aperture blocks movement of the lever portion from the first position to the second position.

84. The lockable enclosure of any of claims 82 and 83, wherein when the access door is in the closed and release positions, placement of the loop portion over the hook portion and movement of the lever portion to the first position moves the access door to the interlocking position.

85. The lockable enclosure of any of claims 72-84, further comprising a spring biasing mechanism configured to automatically move the closed access door from the interlocking position to the release position when the locking feature is in the unlocked condition.

86. The lockable enclosure of claim 85, wherein the spring biasing mechanism comprises a compression spring disposed between the access door hinge portion and a housing hinge portion affixed to the lower wall.

87. The lockable enclosure of claim 86, wherein the housing hinge portion comprises a hinge pin extending through the compression spring and defining the longitudinal axis.

88. The lockable enclosure of any of claims 72-87, wherein the first lid flange is offset from the top wall by a distance greater than a diameter of the first lid lock aperture.

89. A document display apparatus comprising:
   a wall mountable substrate;
   at least one document retaining frame having upper, lower, and first and second side wall portions surrounding a transparent central portion, the at least one document retention
frame being hingedly connected to the wall mountable substrate along the first side wall portion for pivoting movement of the first document retaining frame between a document display position in which a rear surface of the at least one document retaining frame abuts the wall mountable substrate, and a document access position, in which the rear surface of the document retaining frame is exposed;

a document mounting feature connected with the at least one document retaining frame, the document mounting feature being configured to releasably secure a document to the rear surface of the at least one document retaining frame against the transparent central portion; and

a frame attachment feature assembled with one of the wall mountable substrate and the at least one document retaining frame, the frame attachment feature being movable between a frame securing position securing the second side wall portion to the wall mountable substrate, and a frame releasing position permitting pivoting movement of the at least one document retaining frame from the document display position to the document access position.

90. The document display apparatus of claim 89, wherein the document mounting feature comprises a flexible clip attached to the upper wall portion of the at least one document retaining frame.

91. The document display apparatus of any of claims 89 and 90, wherein the frame attachment feature comprises a pivotable knob connected to the wall mountable substrate and receivable through a slot in the second side wall portion of the at least one document retaining frame.

92. The document display apparatus of any of claims 89-91, wherein the at least one document retaining frame comprises first and second document retaining frames.

93. In combination, the lockable enclosure of any of claims 72-88 and the document display apparatus of any of claims 89-92, wherein the document display apparatus is mounted to the lockable enclosure.
**INTERNATIONAL SEARCH REPORT**

- **International application No:** PCT/US2016/059008

**A. CLASSIFICATION OF SUBJECT MATTER**

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

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

- E05G E05B E05D E05F

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

Electronis database consulted during the international search (name of database and, where practicable, search terms used)

- EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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| X        | US 2010/147853 AI (HACKETT JASON O [US]) 17 June 2010 (2010-06-17)               | 72-76, 80-84           |
| Y        | abstract; figures                                                                | 10, 14-18, 21-24, 28-32, 53,60-68 |

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- **X**: Further documents are listed in the continuation of Box C.

- **X**: See patent family annex.

**Date of the actual completion of the international search:**

- 13 January 2017

**Date of mailing of the international search report:**

- 16/03/2017

**Name and mailing address of the ISA/ Authorising officer:**

- European Patent Office, P.O. Box 5618 Patentlaan 2 NL-2280 HV Rijswijk
- Tel. (+31-70) 340-2043, Fax (+31-70) 340-3048

Witasse-Moreau, C

1 Form PCT/ISA/210 (second sheet) (April 2000)

page 1 of 2
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<td>US 1 923 787 A (LARSEN NEIL P) 22 August 1933 (1933-08-22) figures</td>
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INTERNATIONAL SEARCH REPORT

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 64(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

   see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers
   ☐ Why these fees were not paid. These fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is
   ☐ restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
   1-5, 10-18, 21-24, 28-35, 53, 60-68, 72-76, 80-87

Remark on Protest

☐ The additional search fees were accompanied by the applicant’s protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant’s protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.
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This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5, 10-18, 21-24, 28-35, 53, 60-68, 72-76, 80-87

   Lockable enclosure with a housing and a door hinged to the housing, said door being slidable between a latching position and a release position.

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   Lockable enclosure with a housing and a lid, said housing and said lid having laterally extending flanges with apertures for insertion of a padlock shackle.

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3. claims: 89-93

   A document display apparatus with a mounting support and a document retaining frame, said frame having a transparent central portion.