United States Patent [19]

Blower

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[54] **STRONG BOX AND FIXED ANCHORAGE AND MEANS FOR INTERCONNECTING AND LOCKING THEM TOGETHER**

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[52] **U.S. Cl.** **109/52,** 109/50

[51] **Int. Cl.** **E05g 1/04**

[58] **Field of Search** ..... 109/52, 50, 51, 1 R; 232/39; 220/68, 18; 312/204, 244, 257 SM

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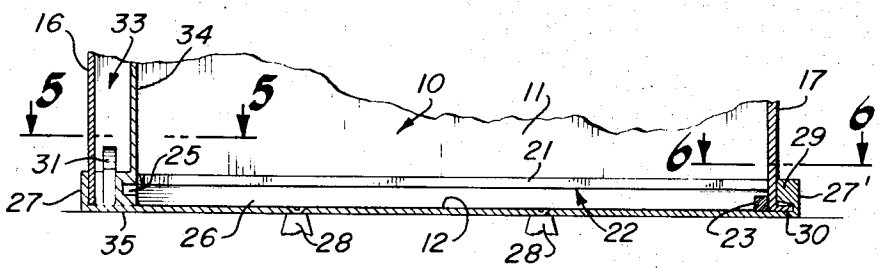
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[57] **ABSTRACT**

A unitary bodied open bottomed, lidded carrying case nestable in a fixed base pan for confining the lid and open bottom of such case within such pan in combination with a means on one end of the case for engaging one end of the pan thereto opposite the other end of the case having a lock operated latching means spring urged into latched engagement with a keeper bolt projecting upwardly from and integrally of the pan. A lock confining chamber provided in such other end of the case including a latching lever spring urged toward a lock chassis confined in the chamber and movable by a key operated slide bolt out of latched engagement with the keeper bolt of the fixed base pan.

4 Claims, 11 Drawing Figures



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FIG. 1

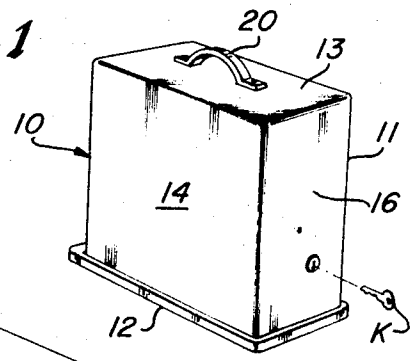


FIG. 3

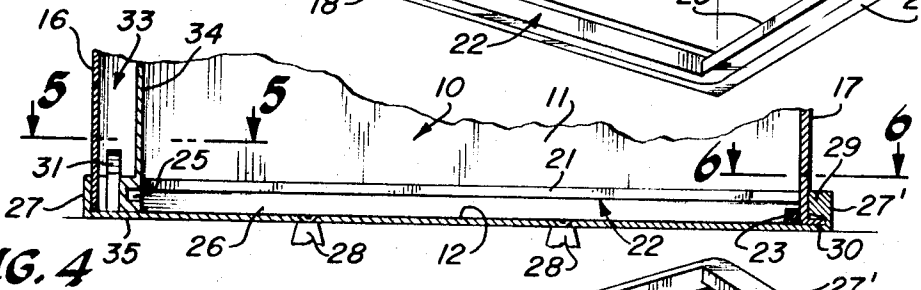


FIG. 4

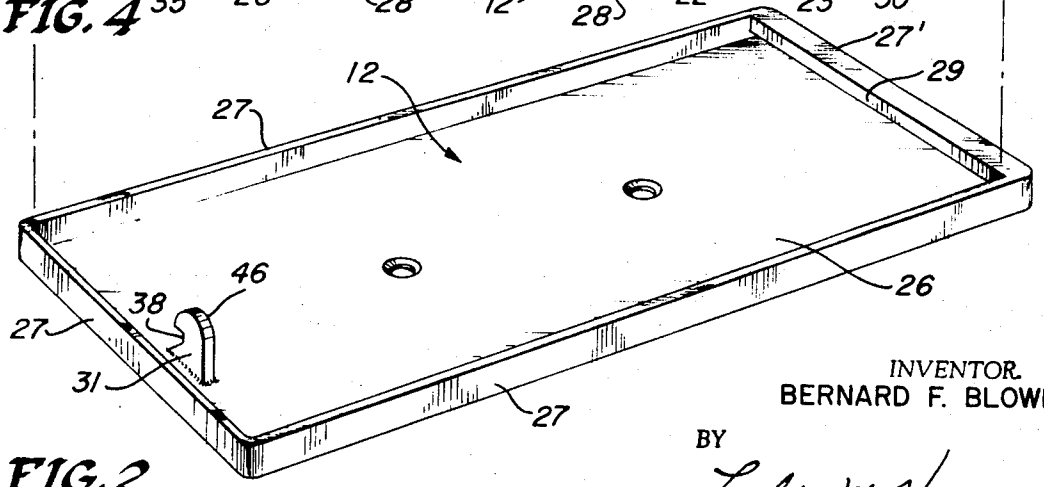


FIG. 2

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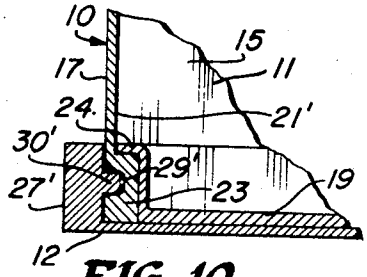


FIG. 10

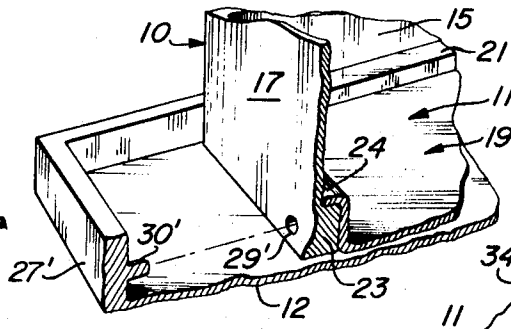


FIG. 11

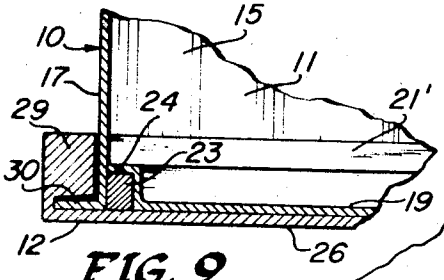


FIG. 9

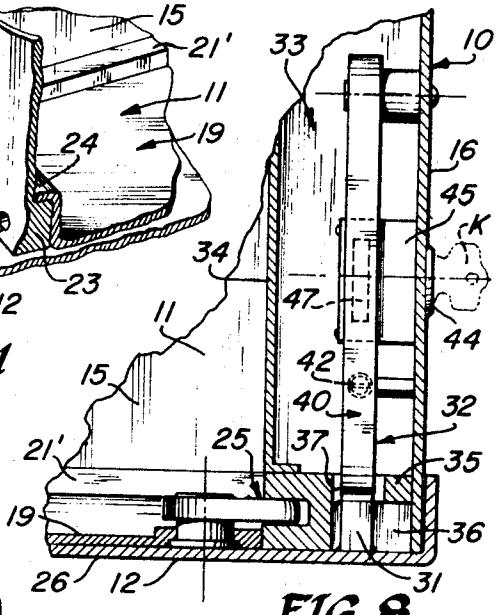


FIG. 8

FIG. 7

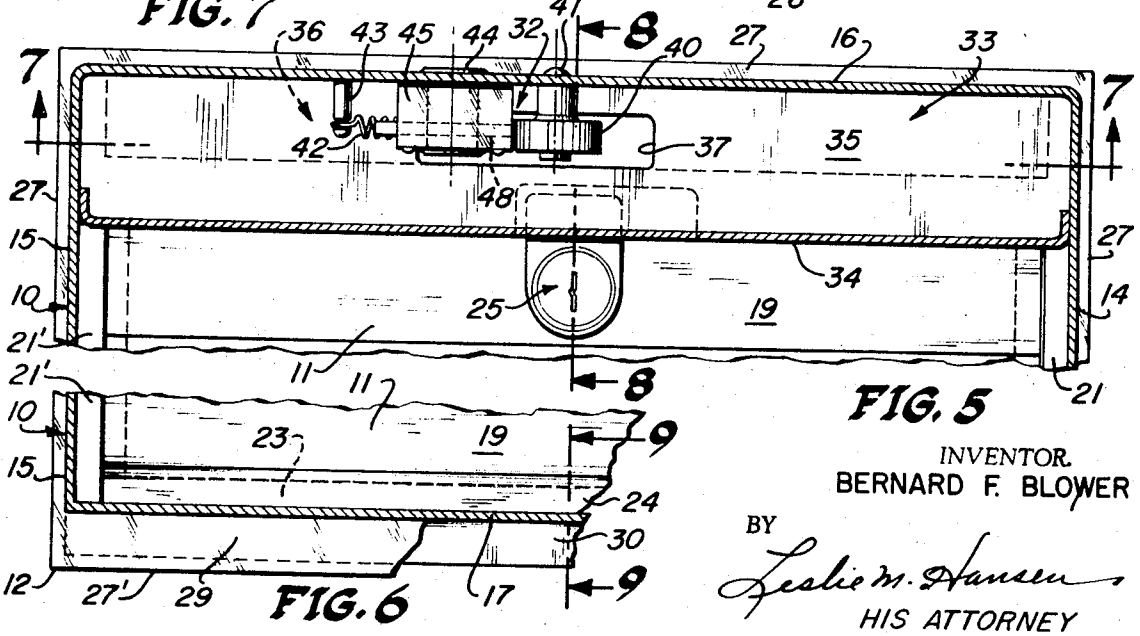


FIG. 6

FIG. 5

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STRONG BOX AND FIXED ANCHORAGE AND MEANS FOR INTERCONNECTING AND LOCKING THEM TOGETHER

BACKGROUND

This invention relates to a novel locking means between an anchorage and a strong box for securing the latter against theft and/or unauthorized access thereto.

The broad concept of securing a strong box to a fixed base is not new. There are numerous patents in the prior art showing in general the arrangement of a strong box, carrying case and the like secured to a base in the form of a fixture to realty, a vehicle or any form of conveyance during transit. Among such prior disclosures, British Pat. No. 933,245 which issued to Jack Maurice Hall Aug. 8, 1963, shows the general arrangement as having what he calls locking spigots projecting from the strong box and insertable into openings formed in a fixture attached to a floor. These spigots have spring latches operatively related with a lock mechanism on the strong box for releasing such latched spigots from latched engagement with the base or fixture. The spigots project from the bottom of the strong box and serve as foot members or legs and due to such projection are easily damaged by sidewise blows. In other disclosures it is the latch and locking mechanisms between the strong box and the fixed base which constitutes the invention thereof. The present invention has its embodiment in a novel construction of the base and locking mechanism as well as the strong box for providing a simple, economical and effective means for interrelating the general components with each other.

STATEMENT OF INVENTION

It is an object of the present invention to provide a fixed base constructed for interlocking relation with a strong box and provided with a latch bolt projecting upwardly into the box for locking engagement with a lock operated latching lever internally of the box.

It is another object to provide such a fixed base for a strong box having its lid lowermost for confinement within the base to obstruct access to the box when it is latched to the fixed base.

It is another object to provide a separate lid and closure means for the open bottom of a strong box and adapted for confinement within the fixed base during securing of the strong box thereto.

It is yet another object to provide a fixed base adapted for nesting the lidded bottom of a unitary bodied carrying case with an integral keeper bolt disposed for latching engagement with a spring loaded latch lever within such case for automatically locking the latter to the fixed base.

It is a still further object of this invention to provide a hinge interconnection between one end wall of the case and the fixed base and means adjacent the opposite end of said case and said base for automatically locking them together as said case is swinging into parallel, nested relation with the fixed base.

These and other objects and advantages of the present invention will be made more apparent in the following description in the light of the accompanying two sheets of drawings in which:

FIG. 1 is a perspective view of a strong box and base embodying the present invention;

FIG. 2 is an enlarged perspective view of the base only of FIG. 1 and at a larger scale;

FIG. 3 is a perspective view of the strong box only of FIG. 1 as seen looking up into the open bottom thereof and complementary to the base of FIG. 2;

FIG. 4 is a fragmentary section taken lengthwise of the base and bottom of the strong box with no closure lid applied to the open bottom of the latter;

FIG. 5 is a fragmentary horizontal section taken through FIG. 4 along line 5—5 and turned 90 degrees clockwise relative thereto;

FIG. 6 is a fragmentary horizontal section taken through FIG. 4 along line 6—6 complementary to that of FIG. 5;

FIG. 7 is a fragmentary vertical section through FIG. 5 along line 7—7 therein;

FIG. 8 is a fragmentary vertical section through FIG. 5 taken along line 8—8 therein;

FIG. 9 is a fragmentary vertical section taken through FIG. 6 along line 9—9 thereof complementary to FIG. 8;

FIG. 10 is a section similar to that of FIG. 9 showing a modified structure thereof; and

FIG. 11 is a fragmentary perspective view illustrating the modified structure of FIG. 9.

GENERAL DESCRIPTION

Referring to FIGS. 1, 2 and 3 the present invention has its embodiment in certain novel improvements in the structure of a strong box 10 consisting of a carrying case 11 adapted to be lockingly secured to a base 12 affixed to a floor or surface of a building, edifice, vehicle and the like as a permanent fixture thereof.

DETAILED DESCRIPTION

The carrying case 11 has the usual top 13, side walls 14 and 15 as well as end walls 16 and 17 to provide an internal receptacle for valuable papers, documents and the like, access to which may only be had through an open bottom 18 in accordance with the present invention. The open bottom 18 of the case 11 is provided with a closure number in the form of a lid 19 adapted to be secured to the case 11 in a manner to afford portability of the latter when detached from the base 12. For this reason the top 13 is provided with a handle 20.

The open bottom 18 of the case 11 is provided with a shoulder portion 21—21′ along its sides 14 and 15 and internally of the open edge of the bottom a distance comparable to the thickness of the lid 19. This provides a seat 22 for the lid 19 to thus support the latter flush with the open bottom 18. The end wall 17 of the case 11 has a projection 23 extending interiorly therefrom slightly less than the thickness of the lid 19 to receive a lip 24 projecting from one end of the lid to secure that end of the lid in place with the lid resting upon the seat 22 provided by the shoulder portions 21—21′ (FIGS. 9 and 10). A latch or locking means 25 is provided between that end of the lid 19 opposite the lip 24 for securing the lid in place on the seat 22.

The base 12 as shown in FIG. 2 comprises a pan 26 of heavy gauge steel provided with an upwardly extending flange-like edge 27 conforming to the shape and size of the case 11 to receive the latter, bottom side down for nested relation therewith. This pan-like base 12 is adapted to be anchored to the floor of a building, vehicle and the like by means of anchor bolts 28 (FIG. 4) extending through the pan 26 in a manner well known in the art. One edge 27′ of the pan 26 is provided with an inturned enlargement 29 spaced slightly

from the pan to receive an outwardly extending lip or flange 30 (FIG. 4) on the bottom edge of the end wall 17 of the case 11. The opposite end of the pan 26 is provided with a keeper bolt 31 welded to or therewise formed integrally with the steel pan. This keeper bolt 31 is disposed in spaced relation to the upstanding flange 27 opposite the edge 27' for latching engagement with latch mechanism 32 within the case 11.

Referring now to FIGS. 3, 4, 5 and 6 the latch mechanism 32 is confined within a chamber 33 provided between the end wall 16 and a partition 34 parallel thereto and welded to the side walls 14 and 15 of the case 11 transversely thereof. As best seen in FIG. 7 the chamber 33 is closed at its bottom by a bottom plate 35 which is permanently secured to the end wall 16, partition 34 and side walls 14 and 15 by welding. The bottom plate 35 has a recess 36 formed adjacent the side wall 16 and the upper surface of plate 35 is provided with a slot 37 through which the keeper bolt 31 may pass when the case 11 is lodged upon the base 12.

As shown in FIGS. 5 and 7 the keeper bolt 31 is offset slightly of center and has a notch 38 formed therein facing center of the pan 26 to engage a notch 39 formed in one edge 48 of a latch lever 40. The latch lever 40 is pivotally mounted as at 41 on one wall 16 of the chamber 33 at approximate center of the case 11 and is urged by a spring 42 toward the keeper bolt 31. The spring 42 is tensioned between the latch lever 40 and an anchor pin 43 mounted on the wall 16 of the case 11 within the chamber 33.

The latch lever 40 is limited in movement toward the keeper bolt 31 by a lock 44 having its chassis 45 mounted within the chamber 33 on one wall 16 thereof. The lower notched end of the latch lever 40 extends into the slot 37 formed in the hollow plate 35 in a manner such as to cammingly engage the rounded upper end 46 of the keeper bolt 31 when the chambered end 33 of the case 11 is lowered into nested relations with the pan 26 of the fixed base 12. By this arrangement the case 11 is automatically locked in nested relation with the base 12 and cannot be removed unless the latch lever 40 is released from the keeper bolt by operation of the lock 44.

The lock 44 has a slide bolt 47 slidably arranged in the chassis 45 of the lock for movement laterally toward and from the latch lever 40 upon turning of a properly coded key K inserted into the lock. As seen in FIG. 7 the slide bolt 47 is disposed to engage the edge 48 of the latch lever 40 above the notch 39 formed therein. Upon operation of the lock 44 by the key K the slide bolt 47 urges the latch lever 40 away from the chassis 45 against the action of the spring 42. This rocks the latch lever 40 away from the keeper bolt 31 (dotted lines FIG. 7) to disengage the notched connection therewith. Thus the case 11 can now be lifted chambered end first out of the pan 26 to a level wherein the flange 30 on the opposite end wall 17 of the case can be slidably withdrawn from the inturned enlargement 29 on the flange 27' of the pan 26.

In conjunction with the foregoing it will be noted that the manner of interconnecting that edge 27' of the base 12 with the case 11 may be in the form of pins 30' and holes 29' on opposite members as shown in FIGS. 10 and 11. The general arrangement remains the same in that end wall 17 of the case 11 opposite the locking means is first adapted to slide angularly into interlocking relation with the edge 27' of the pan 26. Thereafter the slanted bottom of the case is lowered hinge-like into parallel, nested relation with the fixed base pan. Thus, in either event the keeper bolt 31 will be received up through the slot 37 in the bottom plate 35 of the lock containing chamber as the case 11 is brought into nested relation with the pan 26. As the case 11 thus lowered, the lower end of the latch lever 40 cammingly engages the rounded top of the keeper bolt 31 for automatic latching engagement therewith.

From the foregoing it will be appreciated that the simplified construction as explained provides a security strong box which serves as a carrying case having an open bottom closable by a lid which seats into the recessed or shouldered open edges for locked engagement with the case itself during partability. More important, however, the present invention provides a simple, economical and effective lock and latching construction between the strong box and a base pan affixed to realty, a conveyance and the like in such a manner as to preclude removal short of complete destruction of the strong box when so nested and locked to the base.

Having thus described the lock and latching mechanism between a strong box and fixed anchorage in specific detail it will be appreciated that the same may be susceptible to modification, alteration and variations without departing from the spirit or scope of the invention therein as set forth in the appended claims.

What I claim as new and desire to protect by Letters Patent is:

1. In a strong box and fixed base anchorage therefor the combination therewith of means for interconnecting the two and for locking them together comprising:
   1. a strong box having integral top, side and end walls providing an open bottom;
   2. a pan shaped fixed base anchorage for receiving the side and end walls of said strong box, lid-like for closing the open bottom thereof;
   3. means between one end wall at the open bottom of said strong box and said pan shaped base for interconnecting them together, hing-like for swinging movement into parallel, nested relation with each other;
   4. lock and latching mechanism between the opposite end wall of said strong box and said fixed base for automatically locking them together;
   5. a lid for the open bottom of said strong box; and
   6. means for securing said lid to said strong box to form a bottom therefor during portability thereof.

2. The strong box and fixed base anchorage in accordance with that of claim 1 comprising:
   1. shoulder portions formed on the inner surfaces of the side walls of said strong box a distance from the open bottom edges thereof comparable to the thickness of said lid for providing a seat therefor;
   2. a projection formed on the inner surface of one end wall of said strong box and spaced from said seat; and
   3. a lip on that end of said lid opposite said lock and latching mechanism insertable into the space between said seat and projection on the inner surface of said one end wall of said strong box.

3. The strong box and fixed anchorage in accordance with that of claim 2 in which said lock and latching mechanism comprises:
   1. a latching lever pivotally mounted on the inner surface of a second end wall of said strong box opposite said one end wall thereof;

2. a keeper bolt mounted on said fixed pan shaped base for engagement by said latching lever; and

3. spring means between said strong box and said latching lever for urging the latter into latching engagement with said keeper bolt.

4. The strong box and fixed anchorage in accordance with that of claim 3 including:

1. a lock having a chassis secured to the inner surface of second end wall of said strong box and including a key operated lock extending therethrough for operation by a key applied thereto exteriorly of said strong box; said chassis bearing against one edge of said latching lever for limiting movement thereof by operation of said spring beyond engagement with said keeper bolt; and

2. a slide bolt arranged for sliding movement through said chassis and toward said latching lever by operation of said lock for urging said latching lever out of latched engagement with said keeper bolt against the action of said spring.

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