United States Patent

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[54] **DOCUMENT STRONG BOX**
3 Claims, 6 Drawing Figs.

[52] **U.S. Cl.** **109/51,** 109/23
[51] **Int. Cl.** **E05g 1/04**
[50] **Field of Search** 109/50, 51, 52, 23; 312/208, 204

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ABSTRACT: A strong box for documents to be mounted within a desk drawer or at a wall and adapted to house documents of standardized dimensions.

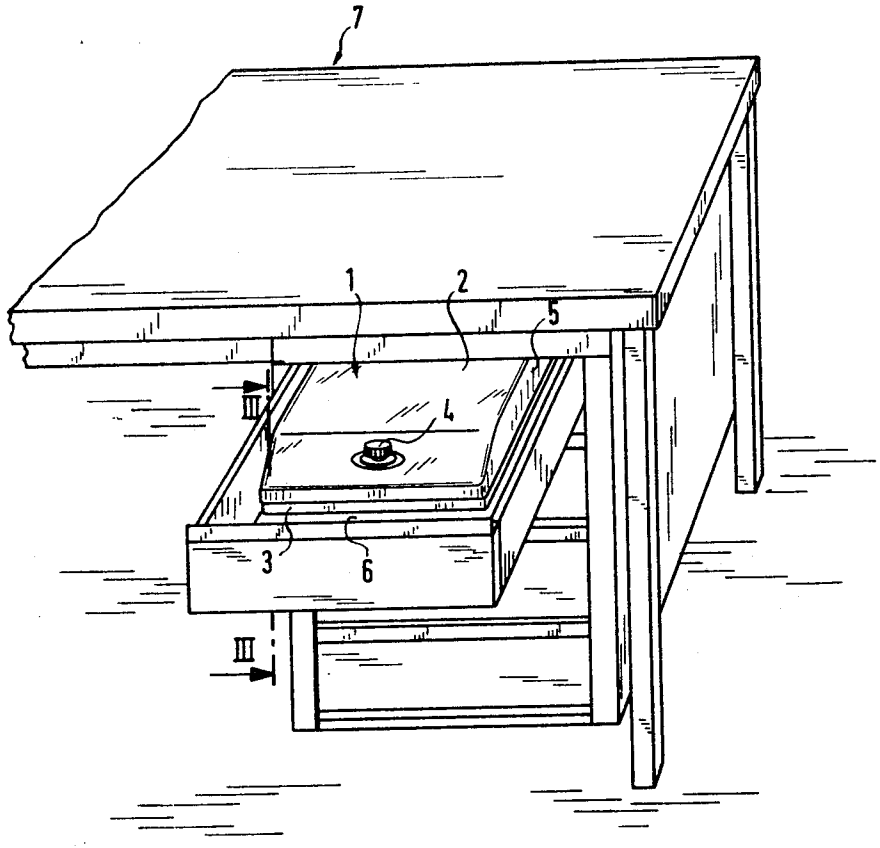
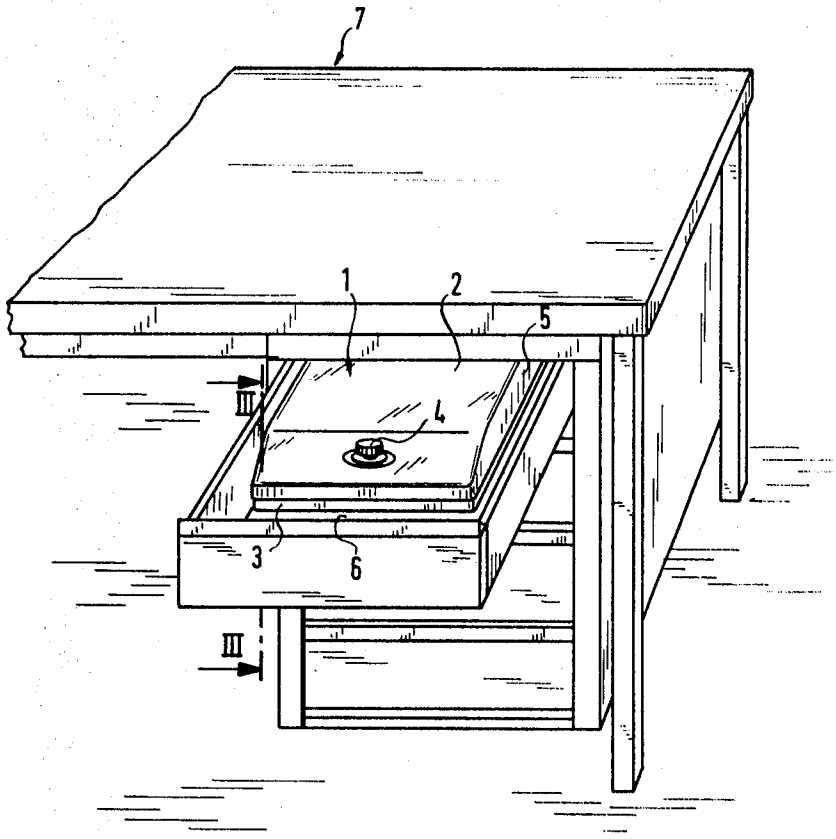
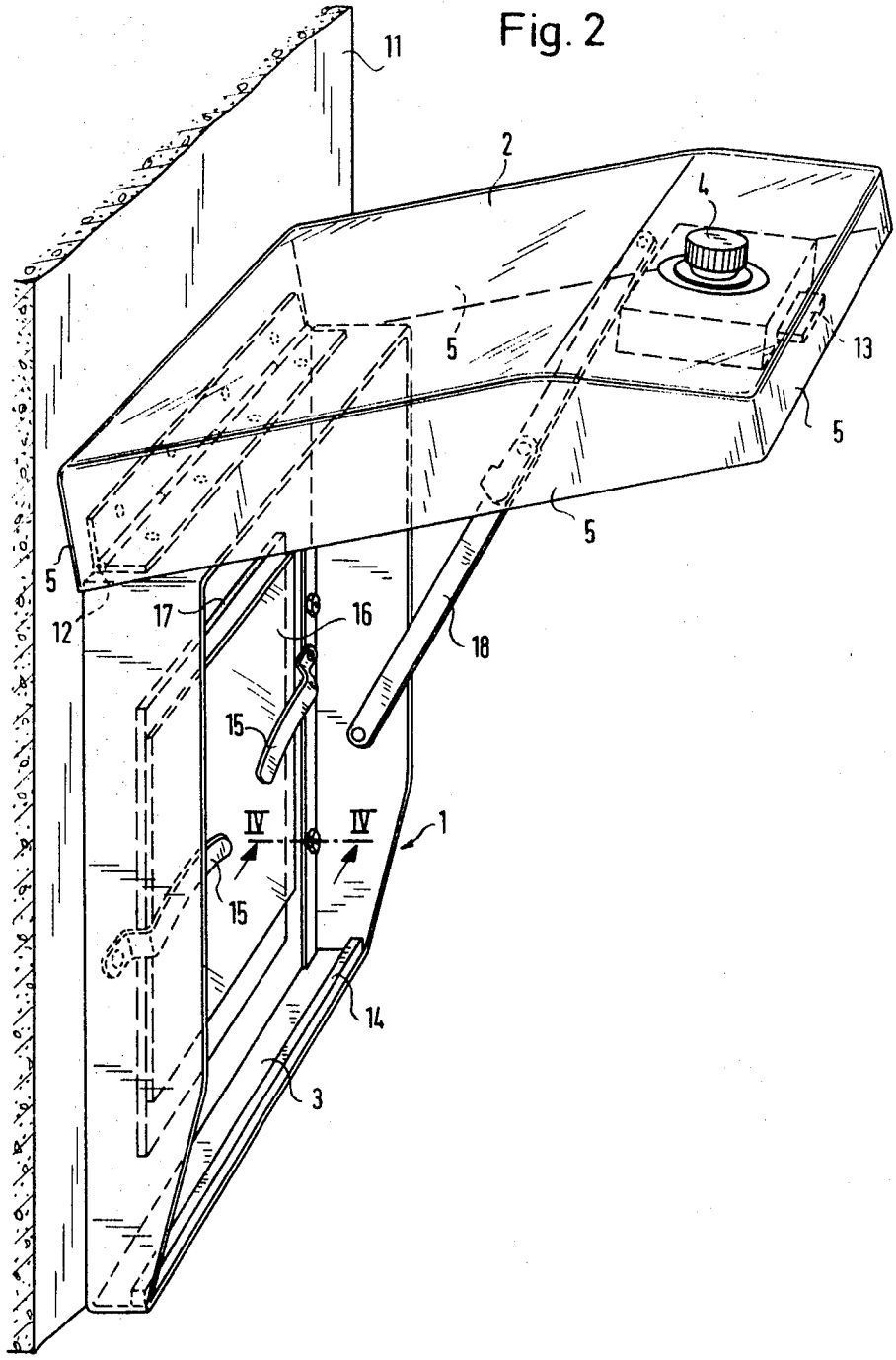


Fig.1



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Fig. 2



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Fig.3a

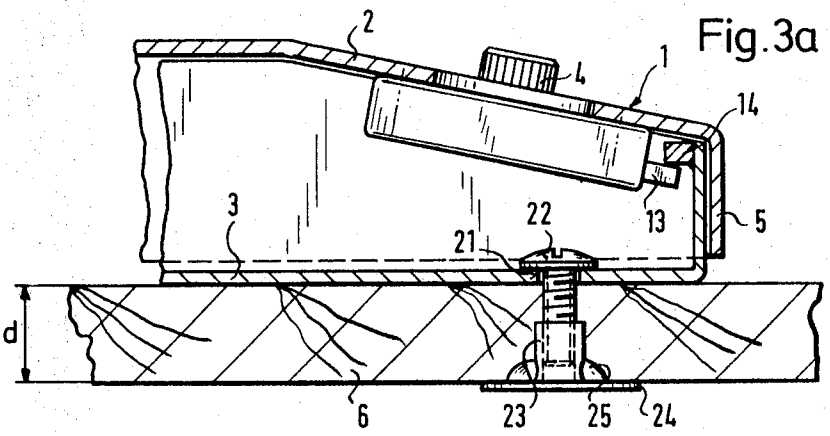
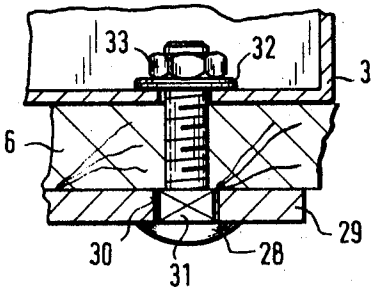


Fig.3b



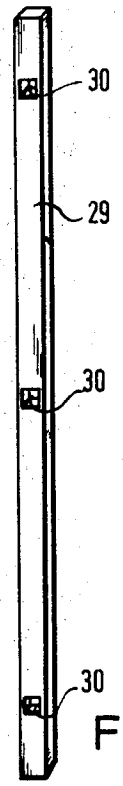
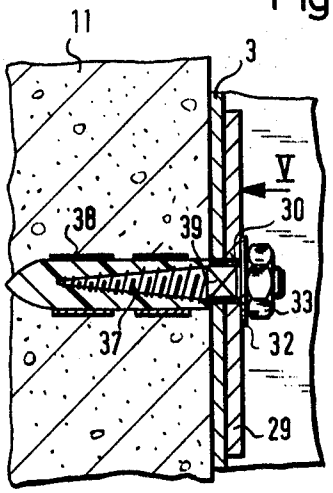


Fig.5

Fig.4



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DOCUMENT STRONG BOX

BRIEF DESCRIPTION OF INVENTION

The invention relates to a strong box made of rigid material, as steel, and being provided to house documents or the like.

These documents normally have a standardized size, say quart form in Anglosaxonian countries, or DIN form in European countries. There is a need to have a strong box for retaining those documents, the size of the box—on the one hand—being so dimensioned that such documents may easily be stored therein without bending or folding, and—on the other hand—being small enough to preserve it in furniture drawers of limited size, say the drawer of a desk. It is desirable that the box, itself being simply designed, may be easily mounted within a desk or the like, or on a wall to prevent its being put away.

It is the object of the present invention to provide a light weight but stable, rigid strong box for documents, the box finding enough space in a normal desk drawer and enabling storage of standardized documents.

According to the invention, the box comprises a substantially flat bottom portion made of hard steel and a cover portion consisting of a top wall and of sidewalls, the cover portion being as well made of hard steel. The area defined by the sidewall edges is dimensioned so that they may slidingly engage over the bottom portion, the latter thus being accessible only from the surface on which the box rests. The bottom and cover portion are dimensioned so that the cavity defined by them has a base area corresponding to dimensions of standardized documents, the maximum height of the box, about equal to the height of the sidewalls of the cover portion, is chosen so that it does not exceed about half the length of the smaller side edge of the bottom portion. Mounting means are provided for mounting the bottom portion to a wall, or within a desk drawer. The mounting means are designed so that they cannot be released except from the box interior when opened.

Of course, a lock is provided to prevent unpermitted opening. Preferably, a puzzle lock is provided in the cover portion, and the latter is recessed or tapered so that the operation knob of the puzzle lock does not extend beyond the overall height of the box. It is preferred that the box cover portion is hinged to the bottom portion, the hinge as well being provided within the box interior and being inaccessible from the outside.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of a strong box according to the invention mounted in the drawer of a desk.

FIG. 2 is a perspective view of a strong box according to the invention mounted on a wall.

FIG. 3*a* is an enlarge detail section view shown in FIG. 1 at line III–III thereof.

FIG. 3*b* is an enlarged detail section view, similar to FIG. 3*a*, showing a modified form of the mounting means.

FIG. 4 is an enlarged detail section view of the mounting means for the strong box shown in FIG. 2 to fasten it at the wall at line IV–IV of FIG. 2.

FIG. 5 is a perspective elevation view of part of the mounting means shown in FIG. 4.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIG. 1 the strong box may be mounted conveniently in the drawer of a desk or writing table. The strong box is generally designated with the numeral 1 and comprises a cover portion 2 and a bottom portion 3. A puzzle or combination lock 4 is provided in the cover portion 2 for safely locking the strong box. Sidewalls 5 of the cover portions complete the strong box which, as shown, is mounted to the bottom of the drawer 6 of the desk 7.

FIG. 2 shows in perspective elevation the strong box according to the invention when opened so all constructional details may be seen. In the drawing the strong box 1 is shown as mounted on a wall 11. Cover portion 2 is hinged to bottom portion 3 by means of a hinge 12 at one of its sidewalls, while

at the other side of the cover portion a combination lock 4 is provided engaging with its bolt 13, a bar 14 at the bottom portion so that the strong box may be sealed.

In order to avoid documents retained in the strong box from falling off, rotatable clamping springs 15 are provided at the bottom portion 3, said clamping springs 15 clamping documents 17 by means of a holding plate 16. If the strong box is mounted in the manner shown, so that the cover portion 2 may be opened by turning it about the hinge 12 upwardly, it is preferred to provide a support means or brace 18 automatically maintaining cover portion 2 in its opened position so that both hands of the user are free to handle the documents.

FIG. 3*a* shows first mounting means for the strong box in a bottom board 6 of a desk drawer. The thickness of the board 6, of course, may be arbitrarily big so that the strong box may easily be mounted at any kind of furniture. The strong box is here and in the following example mounted in such a manner that unscrewing of the screws used for the mounting is not possible from the outside. In the mounting the strong box bottom portion 3 is provided with bores 21 receiving screws 22 for engagement of flanged nuts 23, the latter being inserted into the bottom face of board 6 and tightly forced into the wood of the board 6 by means of the screwing force. Protruding vanes 25 of the nuts prevent them from being turned from the free face of the board.

The example of mounting as described hereinabove requires a certain type of flanged nuts 23. Mounting in accordance with FIG. 3*b* permits use of flathead-screws provided with a portion of rectangular cross section between head and shaft of this screw; this type of screw is commonly used and designated as a stove bolt. A bar 29 is provided, having openings 30 of a cross section which corresponds to cross section of the head portion 31 of the screws so that the openings 30 in the bar 29 prevent turning of the screws when engaging all screws simultaneously. At first, the members 29, 6 and 3 are brought into correct position with respect to each other, thereafter the screw 28 may be fed through opening 30, the hole in the board 6, and thereafter through the hole in the bottom portion 3 of the strong box so that a washer 32 and finally a nut 33 may be fitted over the screw bolt to safely hold the strong box.

FIG. 4 shows in an example the mounting of the strong box according to the invention at a wall. A dowel 38 is fastened in the wall 11 and receives a dowel screw 37 so that only the rectangular portion 39 and a short threaded bolt extends from the wall. The bottom portion 3 of the strong box may be put over the rectangular portions and finally a bar 29 having rectangular openings 30 is fitted over the rectangular portions 39 of the screw. The mounting will then be effected by means of washer 32 and nut 33. The bar 29 improves the rigidity of the screw 37 during the screwing operation of nut 33, and finally reinforces the bottom portion of the strong box. Of course, the rectangular portion 39 of the screw 37 corresponds to the rectangular opening 30 of bar 29.

FIG. 5 shows in perspective elevation the bar 29, and one will realize how the rectangular openings 30 are provided therein.

It is to be understood that the foregoing explanations referring to the accompanying drawings are to be considered as preferred embodiments only, any persons skilled in the art being able to provide modifications thereof when making use of the spirit of the invention as defined by the appendant claims.

I claim:

1. A strongbox comprising a substantially rectangular bottom portion of greater length than width and including a bottom panel and a sidewall about the periphery of the bottom panel, a cover portion engageable over the bottom portion including a sidewall about the periphery of the top portion arranged to closely embrace and fully confine the sidewall of the bottom portion, the top portion including a top panel parallel to the bottom panel and an obliquely inclined panel extending downwardly from the top panel and terminating at the cover

sidewall, the bottom and cover portions defining a hollow cavity therebetween having a base area adequate to receive documents of a predetermined size without folding, the cavity having a maximum height of one-half the width of the bottom portion, mounting means to attach the bottom portion to a base, said mounting means accessible exclusively from the interior of the hollow cavity, and locking means including a combination dial mounted on the inclined panel and not extending above the plane of the top panel thereby permitting a flat surfaced structure to closely overlie the top panel to conceal and further obstruct entry into the box.

2. A document strongbox comprising:

a bottom portion provided with a flat rectangular bottom panel and a vertical one piece sidewall extending entirely about the periphery of the bottom panel and defining four sides;

a cover portion having a peripheral one piece sidewall defining four sides, the sidewall height not less than that of the bottom portion sidewall, and the cover portion sidewall closely embracing and fully confining the bottom portion sidewall;

the cover portion provided with a top panel and an obliquely inclined panel extending at a downward angle from the top panel and obliquely terminating at one side;

a hinge joining the sidewalls of cover and bottom portions at the side opposite said one side;

means for attaching the bottom portion to a base;

a keeper bar attached to the inner surface of the bottom portion on said one side;

a lock affixed to the inner surface of the obliquely inclined panel and including a lock bolt aligned to move parallel to the obliquely inclined panel and to always remain oblique to said one side, the bolt cooperating with the keeper bar to lock the strongbox; and

the obliquely inclined panel maintaining the lock bolt at an angle oblique to the keeper bar side so as to exert an outward force against the keeper bar side through the keeper when the cover portion is pryed to cause the cover and bottom portions to bind thereby increasing the security of the box, the obliquely inclined panel supporting a combination dial on the outside thereof, the dial not extending above the plane of the top panel so a flat structure may closely over lie the box to conceal and further obstruct entry therein.

3. The combination according to claim 2 wherein said hinge extends completely along the side and adjacent the base on the outside of the bottom portion and contains a single unremovable hinge pin to further increase the security of the box.