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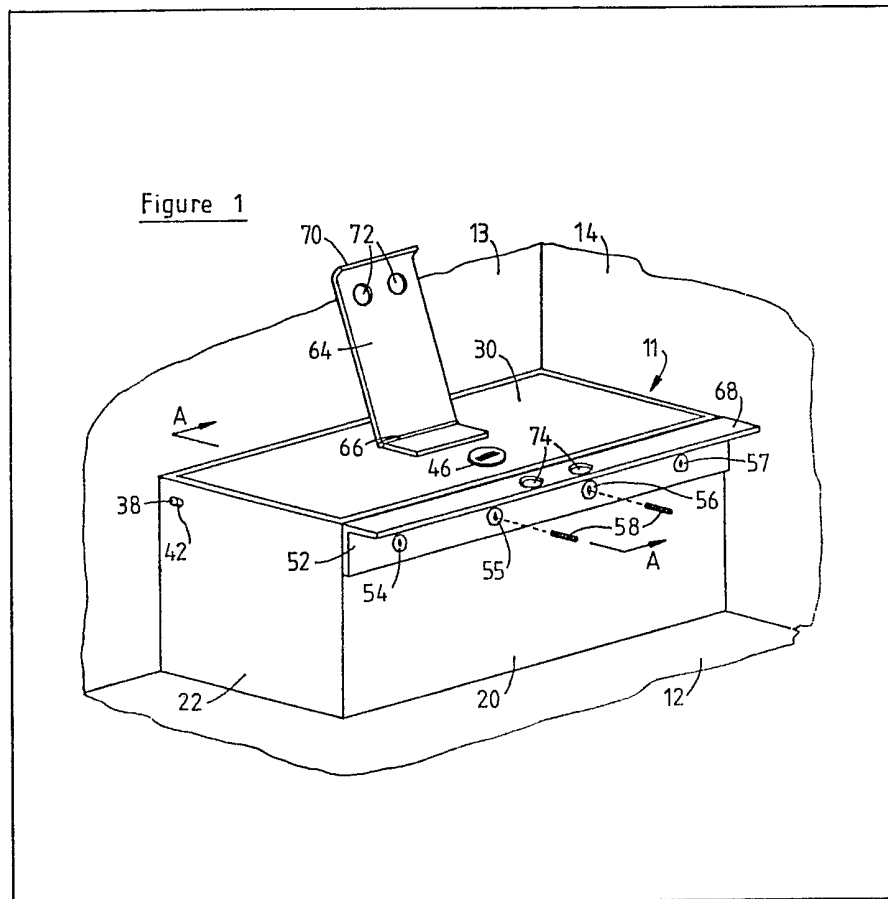
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(54) Security box or cabinet

(57) A security box, cabinet or the like container (11) in which cash, jewellery or other valuables may be kept, and which is particularly adapted for installation in a vehicle such as a caravan, has a lid or door (30) which is securable by a lock (46) and by additional concealed fastening means (58) operable through the stem of a hollow stem rivet (55, 56) set in the container. The concealed fastening

means may comprise set screws (58) drivable along the threaded hollow stems of the rivets (55, 56) into engagement with apertures carried on the underside of the lid (30). The rivet or rivets carrying the concealed fastening means may be among other rivets (54, 57) which all serve to fasten a reinforcing strip or plate (52) to the exterior of the container.

Additional security may be provided by hasp (64) which pivots over lock (46) and is fastened by a padlock engaging holes (72) (74).



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Figure 1

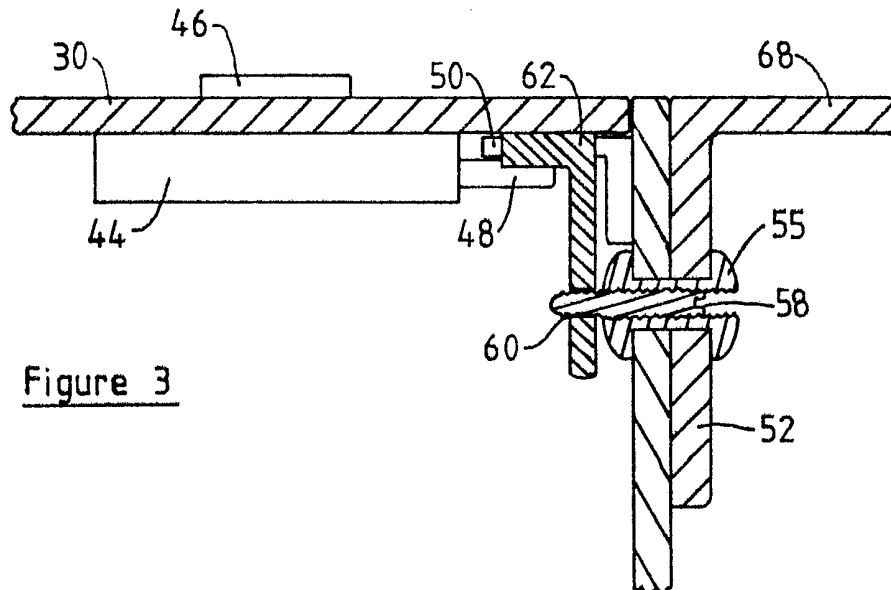
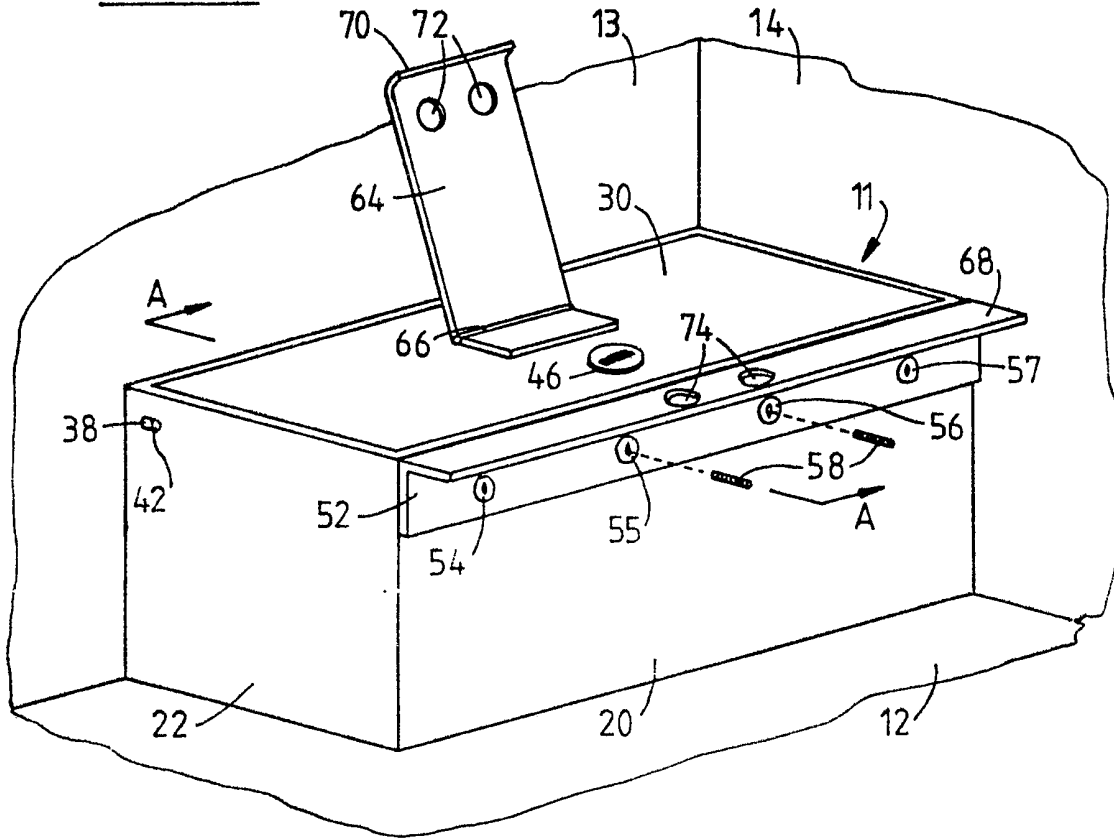
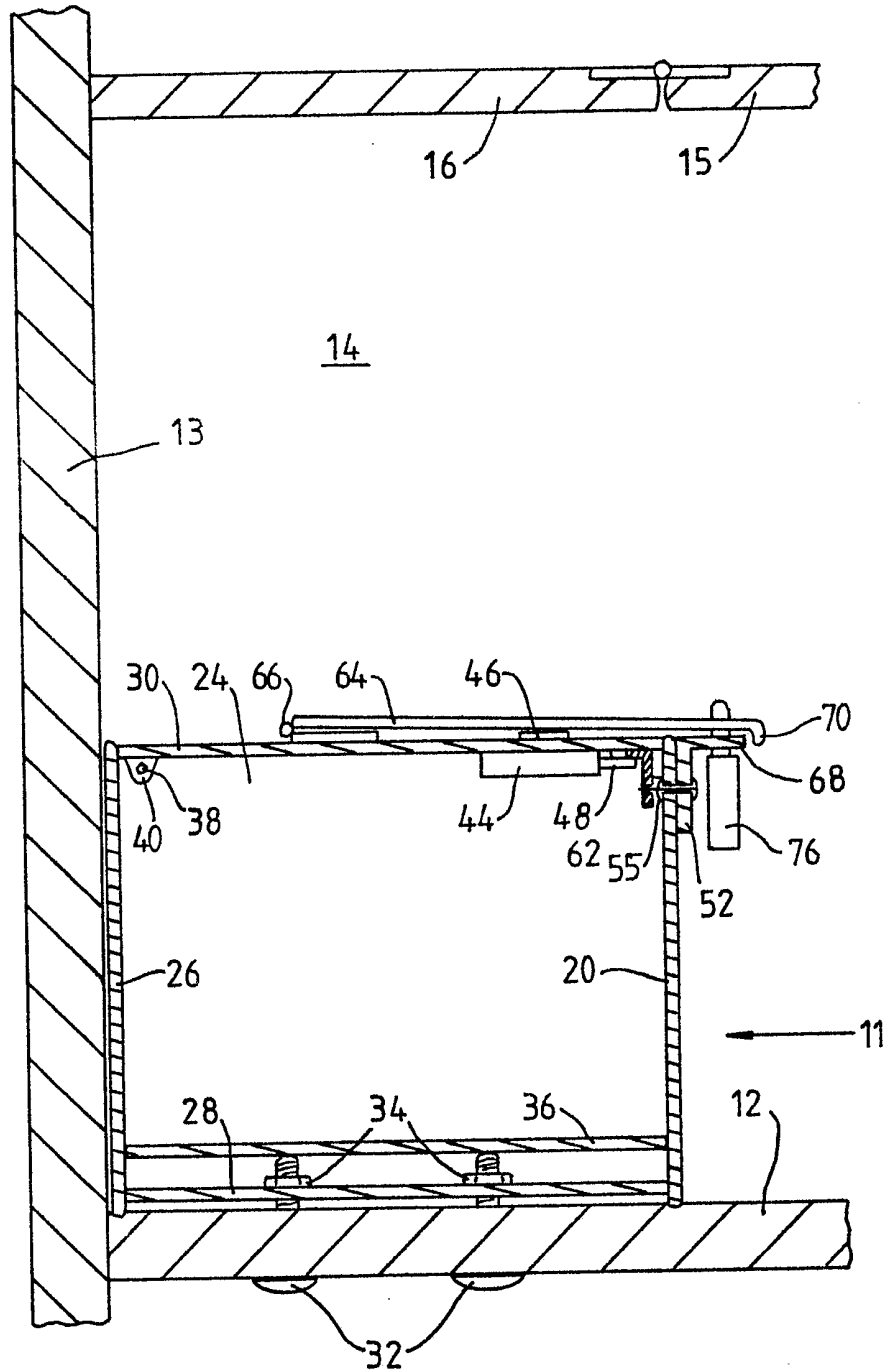


Figure 3

Figure 2



SPECIFICATION

Security box or cabinet

This invention relates to a security box, cabinet or like container in which cash, jewellery or other valuables may be kept with the object of preventing their unauthorised removal, such as by theft. Boxes and cabinets of this kind are usually strongly built and provided with a lock or locks and with means for securing the box or cabinet to a solid structure, such as a floor or a wall of a building, to prevent the total removal of the container.

According to the present invention there is provided a security container having a lid, door or like closure means (hereinafter referred to simply as a lid) which is securable by a lock and by additional concealed fastening means operable through the stem of a hollow stem rivet set in the container. Preferably the container further comprises means, for example bolts and boltholes therefor, in a wall of the container, for anchoring it to another structure. The said lock may be built into the container or may be separate, as in the case of a padlock; or both kinds of locks may be used.

It is a feature of the invention that the container may be suitable for installation in a vehicle, and especially in a motor caravan or trailer caravan. This is particularly the case where the container is of relatively small dimensions, suitable for passports, cash and such quantity of jewellery as might be required during a touring holiday, and can be located in a cupboard or like enclosure which would limit the ability of a would-be thief to bring his tools to bear on the container and to examine closely the exterior of the container.

The container may accordingly be installed in a caravan in an underbed or bunk locker, particularly one on the caravan floor having a flat top closure which forms the base to the bed or bunk or comprising an immovable portion at the back, adjacent a wall, and a flap at the front which is hinged to the immovable portion to afford access to the interior of the locker; the container is preferably anchored to the wall or floor below the immovable portion and oriented and located so that the lid opens towards the immovable portion of the top closure but just clears it at its closest approach.

Since rivets may reasonably be used structurally in a strong box or security cabinet of this kind, their presence would not be expected to attract the particular attention of one trying to break into the container, who may be presumed to be concerned with the principal lock that will normally be either clearly visible or identifiable through a keyhole, combination dial or the like. After time has been spent overcoming the principal lock or locks the thief will still be unable to open immediately a container according to this invention; and since time is likely to be of the essence to a thief on premises or in a caravan where he has no right to be, and there is no easily discernible cause for the failure of the apparently

65 unlocked container to open, he may well be deterred from making any further attempt to open it.

Even if the location of the additional fastening means can be determined through the hollow rivet stem, access to it for the purpose of manipulating it or forcing it will be limited by the narrow dimensions of the stem.

70 Preferably the hollow stem rivet whose stem provides the access to the additional fastening means is one of a plurality of hollow stem rivets set in the container thereby concealing the identity of the particular rivet that is effective for the purposes of this invention. At least some of the plurality of rivets may be used for the purpose of fastening a reinforcing member to the outside of the container, preferably adjacent the junction between the body of the container and the lid when closed, thereby providing an adequate reason for the existence of the rivets at that location. The reinforcing member may be a plate or strip overlying the material of the container, optionally provided with a flange for further stiffening the container at that location and for engagement with further locking means, for example having holes through which the shackle of a padlock may be passed.

The concealed fastening means may comprise an element located within the rivet stem in screw threaded engagement therewith and operable by driving it along the screw thread; to this end the element may be provided with a drive socket or slot in the end directed towards the exterior of the container. The element, which may be a pin on a screw threaded shank or simply a headless screw, may then be driven by means of a suitable key along the stem of the rivet to protrude on the interior of the container and engage an aperture or socket in or on the lid or body of the container, as the case may be, to prevent the lid opening.

100 One embodiment of the invention is illustrated by way of example in the accompanying drawings, in which:

Figure 1 is an isometric view of a strong box located in the bunk locker of a caravan;

110 Figure 2 is essentially a cross section on AA through the box and part of the caravan shown in Figure 1, but showing the box further locked by means of a padlock; and

115 Figure 3 is an enlarged view of part of Figure 2 showing the principal lock and the additional concealed fastening means.

In the drawings, the box 11 is located in the bunk locker in an internal corner formed between the caravan floor 12 and the angle of an external wall 13 and an internal wall 14. The locker may be opened and closed by a top flap 15 which is hinged to a fixed rear shelf 16.

The box 11 comprises a front wall 20, side walls 22, 24 and a rear wall 26, all made of thick steel sheet; a base 28 of similar material is raised slightly from the bottom of these walls, and a steel lid 30 closes the top of the box with its top surface flush with the top edges of the walls.

The box is bolted to the floor 12 against the

walls 13 and 14 by means of coach bolts 32 which pass up through holes in the floor 12 underneath the caravan and through boltholes in the base 28 of the box; when the corresponding

5 nuts 34 are tightened the sides of the box, which project below the base, are pressed into the wooden caravan floor and the whole box is now directly below the shelf 16 with just enough clearance to allow it to be fully opened.

10 The box is provided with a false bottom 36 to avoid damage to the contents from the ends of the coach bolts 32.

The lid 30 is hinged on pins 38 carried in brackets 40 welded to the rear of the lid at each

15 side. The pins engage slots 42 in the side walls 22, 24 of the box, permitting the lid to close with minimal clearance from the front.

The lid carries on its underside a conventional rim of like lock 44, which is operated by means of

20 a key which can be inserted into a keyhole provided in a stud 46 projecting upwards through the lid. The lock has a bolt 48 which, when the box is locked, projects under the inwardly directed top flange of a bracket 50 welded to the inside of the

25 front wall 20 of the box near its uppermost edge. A flanged reinforcing strip 52 is held along the top outside edge of the front wall 20 by means of four break stem rivets 54, 55, 56, 57; it may additionally be secured by a weld. The hollow stems of the two inner rivets 55, 56 are tapped to accept headless screws 58 which each has a hexagonal drive socket in its outer end. Each

30 screw 58 can be turned and driven forwards along the stem of its respective rivet by means of a key in the form of a hexagonal section bar of the corresponding size until the leading end of the screw projects from the inner end of the rivet and engages an aligned aperture 60 in a bracket 62 welded to the underside of the lid 30.

40 When the screws 58 are engaged with the lid in this way they are well recessed into the interior of the rivets 55, 56, and are unlikely to be noticed in a superficial inspection of the locked box. The

45 location of the box in the bunk locker of a caravan, where the locker is opened from above by means of a flap 15, prevents a clear inspection from the front of the box in alignment with the hollow stem of the rivets except by the use of a mirror; in these circumstances the illumination of the rivets and especially of their interiors is likely to be poor. The exteriors of the four rivets 54, 55, 56, 57 are

50 identical.

The lid 30 is provided on its exterior with further locking means in the form of a cover plate

55 64 mounted on a hinge 66. The cover plate can be folded forwards on the hinge over the stud 46, where it both hides the principal lock from view and protects the keyhole, and over the outwardly extending flange 68 of the reinforcing strip 52, terminating in a downturned lip 70 over the outer

60 edge of the flange 68. The cover plate is provided with two holes 72 which, when the plate is closed, exactly overlie corresponding holes 74 in the flange 68, enabling the box to be further locked by

65 means of a padlock 76 after its shackle has been

passed through the four holes in the cover plate and the flange.

The flange 68 also serves to stiffen the top of the front wall 20 of the box and to partially

70 obscure the rivets from above.

After the padlock 76 has been removed from the locked box, the lip 70 enables the front edge of the cover plate 64 to be readily lifted, after which the cover plate serves as a handle to enable the lid

75 to be opened after the lock 44 has been unlocked and the screws 58 have been unscrewed from their engagement with the brackets 62.

When the box is fully locked, as shown in Figure 3, an intending thief is faced with a series of three

80 locks, of which only the first, namely the padlock 76, is visible, and the third, namely the screws 58, is never normally visible.

The hinged cover plate 64 may be replaced by a fixed bracket welded to the top of the lid 30 near

85 its front and extending forward over the flange 68: it may have a hole for a padlock shackle which, when the lid is closed, lies next to a hole in a further bracket upstanding from the flange.

Containers according to the invention may be made in other shapes and sizes and located elsewhere. In particular, the box shown in the drawings may be reversed in orientation so that its front 20 is facing, but spaced from, the rear wall 26 of the caravan. This may make the

95 identification of the additional concealed fastening means in the rivet stems yet more difficult.

CLAIMS

1. A security container having a lid, door or like closure means which is securable by a lock and by

100 additional concealed fastening means operable through the stem of a hollow stem rivet set in the container.

2. A container as claimed in claim 1, further comprising means in a wall of the container for

105 anchoring it to another structure.

3. A container as claimed in claim 1 or claim 2, wherein the hollow stem rivet whose stem provides the access to the additional fastening

110 set in the container.

4. A container as claimed in claim 3, wherein at least some of the plurality of rivets are used for the purpose of fastening a reinforcing member to the outside of the container.

5. A container as claimed in claim 4, wherein the reinforcing member is adjacent the junction between the body of the container and the closure

115 means when closed.

6. A container as claimed in claim 4 or claim 5, wherein the reinforcing member is a plate or strip overlying the material of the container.

7. A container as claimed in any one of the preceding claims, wherein the concealed fastening means comprise an element located within the rivet stem in screw threaded engagement therewith and operable by driving it along the screw thread.

125 8. A container as claimed in claim 7, wherein the element is provided with a drive socket or slot

in the end directed towards the exterior of the container.

5 9. A container as claimed in claim 7 or claim 8, wherein the element is drivable along the stem of the rivet to protrude on the interior of the container and engage an aperture or socket in or on the closure means or body of the container, as the case may be, to prevent the closure means from opening.

10 10. A security container substantially as herein described with reference to and as illustrated in the accompanying drawings.

11. A container as claimed in any one of the preceding claims installed in a locker in a vehicle.

15 12. A container as claimed in claim 11 installed in a caravan in an underbend or bunk locker having a flat top closure which comprises an immovable portion towards the back of the locker, adjacent a wall or the caravan, and a flap towards
20 the front of the locker which is hinged to the immovable portion to afford access to the interior of the locker, the container being anchored to the wall or floor of the caravan below the immovable portion and oriented and located so that the
25 closure means of the container opens towards the immovable portion of the top closure of the locker but clears it at its closest approach.