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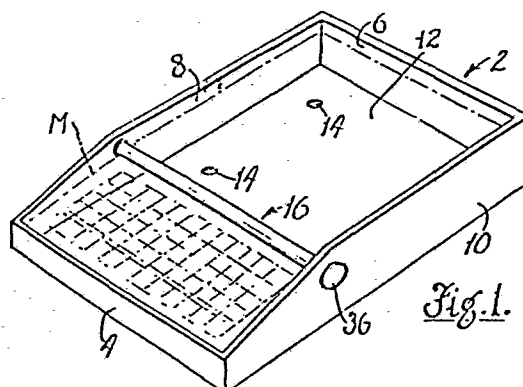
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(54) Security device.

(57) A security device has a base member (2) having two or more upstanding walls (8, 10), on which an article to be secured can be located. A locking bar assembly (16) is positioned between two of the walls (8, 10) to prevent withdrawal of the article upwards from the base. The walls have through holes with which a bore in each end of the locking bar assembly is aligned. A flanged locating member (25) having a shaft (28) passes through the through hole from the outside of the wall and is received in the bore. A separate screw means (34) is insertable from outside of the wall into the flanged locking member (25) for securing the flanged locking member (25) and the locking bar assembly (16) to each other, in use, and thereby securing them to the base member (2).



SECURITY DEVICE.

5           This invention relates to a security device for securing articles.

          Micro-computers are widely used domestically, and in schools and universities as well as in offices and laboratories. These micro-computers are valuable pieces of equipment and, because  
10 of their ready portability are frequently the subject of theft. There is therefore a need for a device for securing such articles, which will act as an effective deterrent to a thief.

          A known security device has a shallow open-topped box which is secured by screws to a desk and into which the micro-  
15 computer can be placed. A bar is passed through the side walls of the box, the bar having a head formed on one of its ends and a hole drilled radially adjacent the other end of the bar. A padlock is inserted through the drilled hole and locked to prevent removal of the bar and so secure the micro-computer in place. This has been  
20 found to be moderately effective, but has limitation in its use. For example, in the case where a closely spaced row of computers is provided, e.g. in a class or lecture room, there is not sufficient room between them for the bar to be removed sideways to facilitate removal of a computer when desired for any reason. Further, and  
25 more importantly it has been found that a padlock was only a mild deterrent, a thief using a bolt cropper had little difficulty in dealing with the padlock.

          Accordingly the invention provides a security device comprising: a base member having at least two upstanding walls, on  
30 which an article to be secured can be located, a locking bar assembly positionable to extend between the two walls to prevent withdrawal of the article upwards from the base member; at least one of the walls having a through hole with which a bore in the locking bar assembly can be aligned; a flanged locating member having a  
35 shaft which can pass through the through hole from the outside of

the wall and be received in the bore; and separate screw means insertable from the outside of the wall into the flanged locking member for securing the flanged locking member and the locking bar assembly to each other, in use, and thereby securing them to the  
5 base member.

The flanged locking member may have a deep recess into which the screw means is insertable, so as to reduce access to the screw means. In one embodiment of the invention both the walls have through holes and the locking bar is insertable through one hole so  
10 that a flange on the bar engages with the outside of the wall, and the bore is in the inserted end of the locking bar.

In another embodiment the locking bar assembly is dimensioned to fit between the walls and has two bores, one at each end each for receiving a flanged locating member. Both walls have a  
15 through hole and the bore at each end of the locking bar is aligned with the corresponding hole to receive the corresponding flanged locating member. A screw securing means secures each locating member to the locking bar assembly. The advantage of this arrangement is that only the flanged locking members need be put in  
20 from the outside of the walls, the locking bar assembly itself being positioned between the walls from above. Thus the locking bar assembly of this device can be fitted even with little space about the device.

The locking bar assembly can be made up of a solid bar  
25 with suitable end bores, or from a sleeve into which is fitted a shorter solid bar. The flanged locating members then fit into the sleeves ends, and the screw means secures each flanged locating member to one end of the internal bar.

Preferred embodiments of the invention will now be  
30 described by way of example with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a security device according to the invention;

Figure 2 is a section view;

35 Figure 3 is a scrap view of parts seen in Figure 2; and

Figure 4 is a view partly in section showing an alternative embodiment.

Referring to Figures 1 to 3 of the drawings, the security device has a base member 2 in the form of a hollow shallow open-topped box having a front wall 4, a rear wall 6, and side walls 8, 10, and a base 12. The side walls 8 and 10 have through holes 38. A security or locking bar assembly 16 is fixed in place between the side walls 8, 10. The bar assembly 16 comprises a hollow sleeve 18 having flanges 20 at each end. A solid bar 22 is located within the sleeve 18 and is somewhat shorter in length than that sleeve. The bar 22 has a threaded hole 24 in each end. Each of two locating members 25 (shown in detail in Figure 3), has a short shaft 26 and a flange 28. The locating member is deeply counterbored at 30. A smaller diameter hole 31 is formed in the bottom of the shaft 26. A shank of cap screw 32 can pass through the hole in the short shaft 26 to be screwed into the tapped hole 24 in the rod 22, while the head 34 of the cap screw engages the inside of the bottom of the counterbore 30. The head 34 of the screw can be of any form, e.g. it may be square or have any other number of sides. A plug 36 is provided to give a neat appearance to the security bar.

In use a micro-computer M indicated in chain line is placed in the box 2 which has been previously screwed to the desk or table by suitable screws 14. The sleeve 18 containing the rod 22 is then placed in position between the walls 8 and 10, in alignment with holes 38 in those walls. The shafts 26 of locating member 25 are inserted through those holes and into the hollow sleeve 18, as seen clearly in Figure 3, and screws 32 are passed through the shafts and screwed into the threaded holes 24. They are tightened by means of a key 39 formed with a suitable socket 40 to fit over the head 34.

For added security screws having different shapes of head 34 may be used at each end of the security bar, in which case two different keys 39 are required.

Once the bar is secured in place as described it is not possible to remove the computer from the box and whilst the computer

is within the box it is not possible to remove the screws 14.

In a further embodiment, not shown, the rod 22 is provided with a groove lengthwise along its periphery and wires or optical fibres forming part of a security alarm system may pass  
5 along the groove and out of a hole in the sleeve or end of the rod 22, the arrangement being such that an alarm signal would be given if the endmost shafts 26 are removed without first disconnecting the alarm system.

In the second embodiment shown in Figure 4 the locking or  
10 security bar assembly comprises a solid rod 50 formed with a flange 52 at one end and having a deep counterbore recess 54 at the other end. The rod 50 is provided with a threaded hole 56 at the bottom of the counterbore recess 54. A locating member 57, with a short shaft 58 end flange 59, similar to locating member 25, is provided.  
15 In use the rod is passed through one of the holes 38 formed in one side wall 8 and then into the hole in the other side wall 10 of the box 2. The shaft 58, of the locating member 57 is inserted into the recess 54 in the end of the rod 50. The screw 32 is inserted into the shaft 58 of locating member 57 and is screwed by the key 39 into  
20 threaded hole 56 in the rod 50 to fix the shaft 58 of the locating member in position with the flange 59 outside the wall 8. Plugs 36 are inserted at each end of the rod for the sake of appearance. This modification would not be most suitable for use where a row of micro-computers is provided, but would suffice for a single  
25 installation.

The security bars are preferably made of high quality stainless steel to deter severance by a normal saw-blade and the rod 22 may be freely rotatable within the hollow bar 16 for the same reason.

30 Although the security arrangement has been described with reference to micro-computers, it can, of course be used for securing anything of value which would otherwise be readily portable, e.g. video and audio recorders.

An added advantage of the above described arrangements is  
35 that the box 2 can be constructed of sheet metal precoated with a

plastics finish and which does not facilitate welding at its corners. With use of security bars passing transversely and fore and aft, the upturned walls cannot be prised open outwardly to gain access to the instrument being protected.

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CLAIMS:

1. A security device comprising: a base member (2) having at least two upstanding walls (8,10), on which an article to be secured  
5 can be located; a locking bar assembly (16,50) positionable to extend between the two walls (8,10) to prevent withdrawal of the article upwards from the base member; at least one of the walls having a through hole with which a bore in the locking bar assembly can be aligned; a flanged locating member (25,57) having a shaft  
10 (26,58) which can pass through the through hole (38) from the outside of the wall (8,10) and be received in the bore; and separate screw means (34) insertable from the outside of the wall (8,10) into the flanged locking member (25,57) for securing the flanged locking member (25,57) and the locking bar assembly (16) to each other, in  
15 use, and thereby securing them to the base member.

2. A security device as claimed in claim 1, wherein the locking bar assembly (16) is dimensioned to fit between the two walls (8,10), and has a bore at each end, each of the walls has a  
20 through hole (38) with which one of the bores is alignable, there are two flanged locating members (25) each insertable through one of the holes (38) to be received by the corresponding one of the bores, and there are two screw means (32), one each for securing each of the flanged locating members (25) to the locking bar assembly (16).

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3. A security device as claimed in claim 1 or 2, wherein the locking bar assembly (16) has a sleeve (18) and rod (22) within the sleeve (18), and the screw means (32) engages in a threaded hole (24) in the rod (22).

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4. A security device as claimed in claim 1, wherein the locking bar assembly is a solid bar (50) with flange (52) adjacent one end, each of the walls (8,10) has a through hole (38) and the bar is insertable through the hole (38) in one wall (8) to the hole in  
35 the other wall, so that in use the flange of the locating member

(57) and the flange (52) of the locking bar (50) restrict movement of the bar from the holes (38).

5. A security device as claimed in any preceeding claim,  
5 wherein the flanged locating members have a deep recess (30,54) into which the screw means is insertable.

6. A security device as claimed in any preceeding claim  
10 wherein the locking bar carries electrical or optical links of an alarm system.

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