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An automatic toll collecting device and a cash box for the same.

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Description

This invention pertains to automatic toll collecting or similar devices and more particularly, to devices having a cash box which after removal, is completely locked and tamper-proof.

Devices for collecting tolls and similar coin or token-operated devices or turnstiles are usually provided with a cash box. For example, DE-A 2 156 999 describes a device for collecting coins comprising a housing adapted to accept coins; a cash box removably disposed within the housing, said box having an access opening through which coins may fall into the box and door means for selectively opening and closing said access opening; and control means disposed within said housing for opening said door means when the box is inserted in the housing. After a box is filled up, it is removed from the toll collecting device and taken to a collecting station, while an empty box is placed in the toll collecting device. At the collecting station, the box is opened and its contents are transferred into a coin-counting device.

Usually the cash boxes are made large enough to contain coins collected over several hours. In addition, they must be tamper proof so that only authorized personnel can open them.

OBJECTIVE AND SUMMARY OF THE INVENTION

A primary objective of the present invention is to provide a collecting device with a removal cash box which may be safely removed and transported without fear that its contents may be accessed by unauthorized persons.

To this end, the device for collecting coins according to the invention further comprises means for latching said door means closed after said door means has been opened at least once at any stage of removal of the box from the housing.

BRIEF DESCRIPTION OF THE FIGURES

Figure 1 illustrates a toll collecting device with a cash box constructed in accordance with this invention;

Figure 2 shows an isometric view of the cash box constructed in accordance with the invention;

Figure 3 shows several stacked cash boxes of the type illustrated in Figure 2;

Figure 4 shows an enlarged view of the cash box of Figure 2;

Figure 5a shows a cross-sectional view taken along line 5-5 in Figure 4;

Figure 5b shows optional alignment pins provided for the cash box;

Figure 6 shows the cash box of Figure 4 in an open position;

Figure 7 shows how prior art cash boxes fill up with coins;

Figure 8 shows how the cash box of Figure 5 fills up with coins;

Figure 9 shows details of the locking mechanism for the cash box of Figure 4;

Figure 10 shows the cash box being engaged by the toll collecting device of Figure 1;

Figure 11 shows further details of the engagement between the box and the toll collecting device of Figure 1;

Figure 12 shows the elements of the door mechanism of the cash box of Figure 4;

Figure 13 shows the strong box with the door mechanism initially closed;

Figure 14 shows the position of the door pin for Figure 13;

Figure 15 shows the cash box of Figure 4 with its door mechanism open;

Figure 16 shows the position of the door pin for the open door mechanism of Figure 15;

Figure 17 shows the cash box of Figure 4 with its door mechanism in the latched position;

Figure 18 shows the door pin for the door mechanism of Figure 17;

Figure 19 shows a hinge for the cash box of Figure 4;

Figure 20 shows a perspective view of another embodiment of the invention; and

Figure 21 shows how the cash box of Figure 20 fills up with coins.

DETAILED DESCRIPTION OF THE INVENTION

This device can be used in several applications including, but not limited to, toll roads, parking lots, garages, etc.

A vehicle toll collecting device 10 is shown in Figure 1. The device is normally adjacent to individual traffic lanes and is provided with a hopper 12 for depositing tokens, coins

and the like. After these deposited items are checked for authenticity and counted they are fed into a removable cash box 14. As shown in Figure 1, cash box 14 is normally housed within a cavity 16 of device 10, behind a normally closed and locked access door 18.

Details of the cash box 14 are shown in Figures 2 and 4. The box has a preferably rectangular shape with a flat top surface 20 so that a plurality of such boxes may be stacked on top of each other as shown in Figure 3. The box has two cavities at its ends, such as at 22, for housing a horizontal handle 24. Handle 24 is used to manipulate the box into and out of device 10. Furthermore, when the box is positioned within the cavity 16 (Figure 1), the handle (not shown) at inner box end 26 may be engaged by a hook or other similar means (not shown) located within device cavity 16, which may be electronically activated to release the handle. Thus box 14 may be removed from device 10 only when an appropriate releasing signal is generated, thereby further insuring that the cash box is not removed by unauthorized personnel.

Box 14 comprises two portions: a main portion 28 which is provided to hold the articles collected from the hopper and a top or cover portion 30 used to close bottom portion 28. The two portions 28 and 30 are hingedly connected by hidden hinges 32. On top surface 20 of portion 30 there is a shallow, generally rectangular depression 34 extending from box

end 26 as shown. Within this depression there is a generally circular access hole 36 covered by a door 38. When the door 38 is in an open position, hole 36 is uncovered and allows access into the box 14. Within the depression 34, there is also a curved slot 40 which holds an operating knob 42. This knob extends upwards, but below the top surface 20 so as not to interfere with stacking of multiple cash boxes nor to cause injury to box handlers. Moving knob 42 in the direction 44 (see Figure 4) moves door 38 towards the open position, as shall be described more fully below. Portion 30 is also provided with a lock mechanism 46 which may be operated by a security key to lock said portion 30 to portion 28.

As can be seen in Figures 5a, 5b and 6, the cash box has a double-walled construction and is made of heavy gauged welded steel so that if it is locked, it is very difficult to open. Portion 28 is provided with an inner peripheral ledge 48 connecting its outer wall 50 to an inner vertical lip 52. Portion 30 rests on ledge 48 as shown.

The box 14 is provided with a plurality of support pins 54, and portion 30 has complementary holes 56 corresponding to pins 54 so that if several boxes are stacked the legs 54 engage holes 56 of the corresponding boxes thereby eliminating lateral movement therebetween during transportation. All pin positions and all hole positions may be, as a group, arbitrarily set into upper (cover) portion or bottom portion 28.

The bottom surface 58 of portion 28 is provided with a plurality of bumps 60 extending into the interior space of the box as shown. These bumps are spaced at a distance smaller than the diameter of the articles collected through hole 36, and are provided to insure that when the box 14 is opened and turned over, none of the articles stick to said bottom surface 58. The box is also provided with a plurality of ventilation holes 62 to insure that the interior of the box remains relatively dry and to evacuate any water that may be present inside the box.

Portion 28 is also provided with one or more reinforcing rods 64 extending horizontally as shown in Figure 6a. Furthermore, portion 30 may also be provided with pins 65 shown in Figure 5b welded as at 67 and portion 28 could be formed with corresponding holes 69 for housing pins 65. The pins 65 and holes 69 also provides a means of avoiding box deformation, and or unauthorized access to box contents in the event the box falls or is dropped on its ends.

Prior art cash boxes were constructed so that their width exceeded their height. As a result, as shown in Figure 7, the articles collected within such prior art boxes tended to block the access hole 36 even if when the boxes were only one third full. The present box is constructed so that its height exceeds its width thereby permitting a larger number of articles to be collected before blockage of access hole 36 occurs, as illustrated in Figure 8.

As can be seen in Figure 6, attached to lip 52, there is a vertically extending spring loaded pin 66 which is allowed to move axially. In Figure 6, pin 66 is shown in its maximum extended position.

Portion 30 is provided with an inner hole 68 adjacent to access hole 36 positioned so that as portion 30 is pivoted to close on portion 28, pin 66 enters through hole 68. The function of pin 66 and registering hole 68 shall be described below in conjunction with the operation of access door 38.

Lock mechanism 46 is mounted on the inner surface of portion 30 as shown in Figure 6. The lock mechanism is provided with a sliding tongue 70 operated by a security key in the normal manner. As best shown in Figure 9, the tongue 70 is adapted to engage a slot 72 formed in portion 28 thereby locking portion 28 to portion 30. Slot 72 is split into two sections by a wall 74. The two slot sections have a maximum width W which does not exceed the diameter of the collected articles. Thus, when the box is emptied, no articles can be stuck in slot 72. Tongue 70 is provided with a slit 76 to match wall 74 as shown.

Within device 10 there is a member 78 (shown in Figure 10) adapted to engage the cash box and open its access door 38. This engagement cannot occur if the access hole 36 is open. Member 78 is dimensioned so that as cash box 14 is inserted into cavity 16 of device 10, at least a portion of member 78 is positioned within depression 34 below the top surface 20 of the box. Member 78 is provided on its bottom surface 80 with a groove 82 having first and second straight portions 84 and 86. The straight portions are offset from each other and joined by an intermediate portion 88. The groove 82 is positioned so that as the box 14 is pushed into cavity 16, access door operating-knob is engaged by groove 82. Initially, in the position shown in Figure 10, access door 38 is closed over hole 36 and remains closed while knob 42 remains in portion 84 of groove 82. However, as box 14 is pushed further into the cavity 16, knob 42 (as shown in Figure 11) enters portion 88 of groove 82 and is gradually forced to move in slot 40 in the direction of arrow 44 (see Figure 4) thereby opening door 38. By the time knob 42 reaches groove portion 86, the door 38 is fully opened. When box 14 is removed, the whole process is reversed, automatically closing door 38. As a result, the box 14 cannot be removed if door 38 is opened. This greatly enhances box security against unauthorized tampering.

Preferably the top 20 of portion 30 is double walled so that the door 38 can be housed inside it. Details of the access door 38 are shown in Figure 12. The door comprises a plate 90 with a semicircular cut-out 92. The cut-out is provided to insure that when the door 38 is in its open position, it clears access hole 36. The plate is provided with a mounting pin 94 used to pivotally mount the door to portion 30. A second pin 96 is secured to plate 90 and is provided as an anchoring point for two coil springs 98 and 100. Pin 96 extends through plate 90 to form operating knob 42. A T-shaped member 102 is pivotally mounted on pin 94 on top of plate 90 as shown. A distal end of coil spring 98 is connected to T-shaped member 102 so that coil spring 98 urges said member 102 against stop 104. Similarly, distal end of coil spring 100 is secured to a stationary pin 106 which is positioned so that coil spring 100 urges

the plate 90 towards its closed position. The access door 38 is arranged and positioned within portion 30 so that when the portion 30 is initially closed, pin 66 mounted on portion 28 enters through hole 68 (Figure 6) and is urged against the T-shaped member 102 as shown in Figure 12.

The access door 38 operates as follows. Prior to the insertion of box 14 into device 10, door 38 closes off hole 36 as shown in Figure 13. As previously mentioned, pin 66 is urged against T-shaped member 102 by spring 104 as shown in Figures 13 and 14. As box 14 is inserted into device 10, operating knob 42 is moved clockwise by groove 82 (as described above) within slot 40 pivoting plate 90 around pin 94 until hole 36 is completely opened as shown in Figure 15. In the open position, coins deposited in device 10 are fed by a hopper (not shown) through hole 36 into box 14. During the clockwise movement door 38, the pin 66 slides across the surface of the T-shaped member 102 and clears it so that in the open position of Figure 15, the pin is resting against the face of plate 90 as shown in Figures 15 and 16. After the box 14 is full, it is withdrawn from device 10. As the knob 42 moves through groove 82, spring 100 urges the door 38 back toward its closed position covering hole 36 as shown in Figure 17. Under the action of spring 100, plate 90 turns counter-clockwise and pin 66 slides across the face of the plate. Since the top section of the pin 66 is above the T-shaped member 102, the T-shaped member turns with plate 90 only until it (the T-shaped member) is stopped by pin 66. Thus as the plate 90 moves back through towards the closed position pin 66 continues to slide across plate 90 until it clears plate edge 110 at which point spring 108 pushes pin 66 upwards past plate 90 as shown in Figure 17 and 18. Thus, as can be seen in Figure 17, after the door 38 has been operated once with portion 30 closed against portion 28, pin 66 is positioned between the T-shaped member 102 and plate 90. As a result, the door is latched in a closed position any attempt to re-open access door 38 by turning plate 90 clockwise merely brings plate edge 110 into contact with pin 66, and no further. Therefore, pin 66 cooperates with plate 90 and prevents unauthorized access into box 14.

When box 14 is opened by unlocking lock 46, to remove the coins stored therein, pin 66 mounted on portion 28 is retracted from hole 68 of portion 30 allowing T-shaped member 102 to complete its counter-clockwise motion under the influence of spring 98 until it engages stop 104 as shown in Figure 13 and the door is reset so that it may be opened again. As previously mentioned, the box 14 has a double-walled construction so that it is difficult to open without the proper means for deactivating its lock while at the same time facilitating the authorized evacuation of the coin contents. Furthermore, the hinges 32 are mounted so that they are normally substantially hidden from view as shown in Figure 19 to prevent tampering.

Advantageously, lock 46 is covered when the box is inserted in device 10 so that the box may be opened by a key only after the box has been removed. Furthermore, hole 36 is made sufficiently

small so that a person's hand cannot fit there-through.

Another, somewhat preferred embodiment of the cash box is shown in Figure 20. In this embodiment access hole 38' has been shifted to the geometric center of box top surface 20'. As a result, as shown in Figure 21 even more coins can be collected by the box before it overflows.

Claims

1. A device for collecting coins comprising:
a housing adapted to accept coins,
a cash box (14) removably disposed within the housing, said box having an access opening (36) through which coins may fall into the box and door means (38) for selectively opening and closing said access opening, and
control means (78) disposed within said housing for opening said door means (38) when the box (14) is inserted in the housing, characterized in that said device further comprises,
means (66) for latching said door means (38) closed after said door means has been opened at least once at any stage of removal of the box from the housing.

2. The device of claim 1 wherein said cash box further comprises locking means (46) which must be opened before the contents of the cash box may be removed.

3. The device of claim 1 wherein said door means (38) is pivotable between an open and a closed position by a control knob (42) and said control means comprises a member (78) with a groove (82) shaped to shift said control knob to open said door means as said box (14) is inserted in said housing.

4. The device of claim 3 wherein said means for latching (66) comprises means for preventing the reinsertion of the box into said housing after the box has been removed.

5. A cash box comprising:
an enclosure with an access hole (36) for depositing coins within said enclosure,
opening means for opening said enclosure for removing coins therefrom, and
door means (38) for selectively opening and closing said access hole (36) characterized in that said cash box further comprises
latching means (66) for latching said door means in a closed position after said door means has been opened and closed, and
deactivating means for deactivating said latching means after said enclosure has been opened.

6. The cash box of claim 5 wherein said enclosure is double-walled and comprises a first portion (28) for holding coins with a top opening and a second portion (30) for closing said top opening.

7. The cash box of claim 6 further comprising means (58, 60) for facilitating the removal of all coins contained therein when said box is reversed.

8. The cash box of claim 6 wherein said second portion (30) is hingedly connected (32) to said first portion (28), and further comprises locking means (46) for securing said second portion to said first portion, the hinges (32) being substantially hidden.

9. The cash box of claim 8 wherein said first portion (28) has a bottom (58) provided with a plurality of internal protrusions (60) said protrusions being spaced at a distance smaller than a coin diameter.

10. The box of claim 9 further comprising ventilation and water evaporation holes (62) disposed on said bottom (58).

11. The box of claim 8 wherein said locking means (46) is disposed on said second portion (30) and includes a slideable tongue (70) and said first portion (28) comprises a cavity (72) engaged by said tongue to lock second portion to said first portion.

12. The box of claim 11 wherein said cavity (72) is partitioned by a wall means (74) to form cavity sections having a width (W) smaller than a coin diameter.

13. The box of claim 5 further comprising two opposed external handle means (24).

14. The box claim 5 having a width and a height, said height exceeding said width.

15. The cash box of claim 5 wherein said door means (38) comprises a plate (90) pivotable between a first position in which said plate blocks said hole (36), and a second position in which said plate is disposed away from said hole, spring means (100) for urging said plate toward said first position, an intermediate member (102) pivotably mounted on said plate; and said latching means comprises a latching pin (66) urged toward said plate by a latching spring (108).

16. The box of claim 15 wherein said intermediate member (102) is initially positioned between said latching pin (66) and said plate when said plate (90) is in said first position, said intermediate member pivoting away from said latching pin (66) when said plate moves from said first to said second position, said latching pin being positioned to block the plate after it has moved from said second to said first position.

Patentansprüche

1. Münzsammelvorrichtung mit:
einem für die Aufnahme von Münzen geeigneten Gehäuse,
einem innerhalb des Gehäuses beweglich angeordneten Münzbehälter (14), wobei dieser Behälter eine Zugangsöffnung (36), wodurch die Münzen in den Behälter hineinfallen können, sowie Türmittel (36), die wahlweise zum Auf- und Zumachen der Zugangsöffnung bestimmt sind, aufweist, und Steuerungsmitteln (78), die innerhalb des Gehäuses zum Aufmachen der Türmittel (38) bei Einführung des Behälters (14) in dasselbe angeordnet sind, dadurch gekennzeichnet, daß die Vorrichtung auch Mittel (66) aufweist zur Verriegelung der Türmittel (38) in geschlossene Stellung nach deren Aufmachen, und zwar mindestens einmal in jeder Phase der Herausnahme des Behälters aus dem Gehäuse.

2. Vorrichtung nach Anspruch 1, in dem der Münzbehälter auch Sperrmittel (46) umfaßt, die aufgemacht werden müssen, bevor der Inhalt des Münzbehälters herausgenommen werden kann.

3. Vorrichtung nach Anspruch 1, in dem die Türmittel (38) mittels eines Steuerungsbolzens (42) zwi-

schen einer offenen Stellung und einer geschlossenen Stellung drehbar sind und die Steuerungsmittel einen Körper (78) mit einer zur Verschiebung des Steuerungsbolzens ausgebildeten Nut (82) zum Aufmachen der Türmittel bei Einführung des Behälters (14) in das Gehäuse.

4. Vorrichtung nach Anspruch 3, in dem die Verriegelungsmittel (66) Mittel zur Verhinderung der Wiedereinführung des Behälters in das Gehäuse, nachdem der Behälter herausgenommen worden ist, umfassen.

5. Münzbehälter mit:
einem Kasten mit einem Zugangsloch (36) zum Einlegen von Münzen innerhalb des Gehäuses,
Öffnungsmitteln zum Aufmachen des Gehäuses und zum Herausnehmen der Münzen daraus und Türmitteln (38), die wahlweise zum Auf- und Zumachen des Zugangsloches (36) bestimmt sind, dadurch gekennzeichnet, daß der Münzbehälter auch Verriegelungsmittel (66) zur Verriegelung der Türmittel in eine geschlossene Stellung nach deren Auf- und Zumachen, sowie Außerbetriebsetzung der Verriegelungsmittel nach Aufmachen des Gehäuses umfaßt.

6. Münzbehälter nach Anspruch 5, in dem der Kasten doppelwandig ist und eine zum Enthalten der Münzen bestimmte, mit einer oberen Öffnung versehene erste Portion (28) sowie eine zum Zumachen der oberen Öffnung bestimmte zweite Portion (30) umfaßt.

7. Münzbehälter nach Anspruch 6, der auch Mittel (58, 60) zur erleichterten Herausnahme aller darin enthaltenen Münzen bei Umkehren des Behälters umfaßt.

8. Münzbehälter nach Anspruch 6, in dem die zweite Portion (30) mittels Scharniere (32) mit der ersten Portion (28) verbunden ist und auch Sperrmittel zur Befestigung der zweiten Portion an die erste Portion umfaßt, wobei die Scharniere (32) erheblich verborgen sind.

9. Münzbehälter nach Anspruch 8, in dem die erste Portion (28) einen Boden (58) mit mehreren inneren Ausstülpungen (60) aufweist, wobei diese Ausstülpungen (60) in einem Abstand liegen, der kleiner als der Durchmesser der Münzen ist.

10. Münzbehälter nach Anspruch 9, der auch auf dem Boden (58) angeordnete Lüftungs- und Wasserverdampfungslöcher (62) umfaßt.

11. Behälter nach Anspruch 8, in dem die Sperrmittel (46) auf der zweiten Portion (30) angeordnet sind und eine gleitende Zunge (70) enthalten, wobei die erste Portion (28) eine Vertiefung (72) umfaßt, in die die Zunge zur Verriegelung der zweiten mit der ersten Portion eingreift.

12. Behälter nach Anspruch 11, in dem die Vertiefung (72) mittels Wandmittel (74) zur Bildung von Vertiefungssektionen unterteilt sind, die eine Breite (W) aufweisen, die kleiner als der Durchmesser der Münzen ist.

13. Behälter nach Anspruch 5, der zwei äußere, gegenüberliegende Handgriffmittel (24) umfaßt.

14. Behälter nach Anspruch 5, der eine Breite und eine Höhe aufweist, wobei die Höhe größer als die Breite ist.

15. Münzbehälter nach Anspruch 5, in dem die

Türmittel (38) eine Platte (90) umfassen, die zwischen einer ersten Stellung, in der sie das Loch (36) sperrt, und einer zweiten Stellung, in der sie in einem Abstand vom Loch liegt, drehbar ist, sowie Federmittel (100) zur Beanspruchung der Platte in Richtung auf die erste Stellung und einen auf der Platte drehbar gelagerten Zwischenkörper (102), wobei die Verriegelungsmittel einen Verriegelungsstift (66) umfassen, der durch eine Verriegelungsfeder (108) in Richtung auf die Platte beansprucht wird.

16. Behälter nach Anspruch 15, in dem der Zwischenkörper (102) zuerst zwischen den Verriegelungsstift (66) und die Platte eingestellt ist wenn diese Platte (90) in der ersten Stellung liegt, und der Zwischenkörper sich von dem Verriegelungsstift weg dreht, wenn sich die Platte von der ersten nach der zweiten Stellung bewegt, wobei der Verriegelungsstift zur Sperrung der Platte eingestellt wird, nachdem sich die Platte von der zweiten nach der ersten Stellung bewegt hat.

Revendications

1. Dispositif destiné à collecter des pièces de monnaie, comportant:

un logement adapté pour recevoir des pièces de monnaie,

une boîte à monnaie (14) disposée d'une manière amovible à l'intérieur du logement, ladite boîte étant pourvue d'une ouverture d'accès (36) par laquelle les pièces de monnaie peuvent tomber dans la boîte, et de moyens formant porte (38) destinés à ouvrir et à fermer sélectivement ladite ouverture d'accès, et des moyens de commande (78) disposés à l'intérieur dudit logement pour ouvrir lesdits moyens formant porte (38) lorsque la boîte (14) est introduite dans le logement, caractérisé en ce que ledit dispositif comporte également

des moyens (66) destinés à verrouiller en position fermée lesdits moyens formant porte (38) après qu'ils ont été ouverts, au moins une fois à chaque étape d'extraction de la boîte hors du logement.

2. Dispositif selon la revendication 1, dans lequel ladite boîte à monnaie comporte également des moyens de fermeture (46) qui doivent être ouverts pour qu'on puisse extraire le contenu de la boîte à monnaie.

3. Dispositif selon la revendication 1, dans lequel lesdits moyens formant porte (38) sont aptes à pivoter entre une position ouverte et une position fermée grâce à un bouton de commande (42), et lesdits moyens de commande comportent un organe (78) pourvu d'une rainure (82) conformée pour permettre le déplacement dudit bouton de commande en vue d'ouvrir lesdits moyens formant porte lorsque ladite boîte (14) est introduite dans ledit logement.

4. Dispositif selon la revendication 3, dans lequel lesdits moyens de verrouillage (66) comportent des moyens destinés à empêcher la réintroduction de la boîte dans ledit logement après que la boîte a été extraite.

5. Boîte à monnaie comportant:
un boîtier pourvu d'un trou d'accès (36) destiné à

déposer des pièces de monnaie à l'intérieur dudit boîtier,

des moyens d'ouverture destinés à ouvrir ledit boîtier en vue d'en extraire les pièces de monnaie, et des moyens formant porte (38) destinés à ouvrir et à fermer sélectivement ledit trou d'accès (36), caractérisée en ce que ladite boîte à monnaie comporte également

des moyens de verrouillage (66) destinés à verrouiller dans une position fermée lesdits moyens formant porte après que ceux-ci ont été ouverts et fermés, et

des moyens de mise hors fonction destinés à mettre hors fonction lesdits moyens de verrouillage après que ledit boîtier a été ouvert.

6. Boîte à monnaie selon la revendication 5, dans laquelle ledit boîtier est à double paroi et comporte une première partie (28) destinée à renfermer les pièces de monnaie et munie d'une ouverture supérieure, et une seconde partie (30) destinée à fermer ladite ouverture supérieure.

7. Boîte à monnaie selon la revendication 6, comportant également des moyens (58, 60) destinés à faciliter l'extraction de toutes les pièces de monnaie qu'elle contient lorsque ladite boîte est renversée.

8. Boîte à monnaie selon la revendication 6, dans laquelle ladite seconde partie (30) est reliée à l'aide de charnières (32) à ladite première partie (28) et comprend également des moyens de fermeture (46) destinés à assujettir ladite seconde partie à ladite première partie, les charnières (32) étant sensiblement cachées.

9. Boîte à monnaie selon la revendication 8, dans laquelle ladite première partie (28) présente un fond (58) pourvu de plusieurs protubérances internes (60), lesdites protubérances étant espacées d'une distance inférieure au diamètre d'une pièce.

10. Boîte à monnaie selon la revendication 9, comportant également des trous d'aération et d'évaporation de l'eau (62) disposés sur ledit fond (58).

11. Boîte selon la revendication 8, dans laquelle lesdits moyens de fermeture (46) sont disposés sur ladite seconde partie (30) et comprennent une languette coulissante (70), ladite première partie (28) comportant une cavité (72) avec laquelle s'accouple ladite languette pour verrouiller entre elles les seconde et première parties.

12. Boîte selon la revendication 11, dans laquelle ladite cavité (72) est cloisonnée par des moyens formant paroi (74) pour former des sections de cavité ayant une largeur (W) inférieure au diamètre d'une pièce.

13. Boîte selon la revendication 5, comportant deux moyens formant poignées extérieurs opposés (24).

14. Boîte selon la revendication 5, présentant une largeur et une hauteur, ladite hauteur étant supérieure à ladite largeur.

15. Boîte à monnaie selon la revendication 5, dans laquelle lesdits moyens formant porte (38) comportent une plaque (90) apte à pivoter entre une première position dans laquelle elle bloque ledit trou (36), et une seconde position dans laquelle elle est disposée à distance dudit trou, des moyens élastiques (100) destinés à solliciter ladite plaque vers ladite

première position, et un organe intermédiaire (102) monté pivotant sur ladite plaque, lesdits moyens de verrouillage comportant une broche de verrouillage (66) sollicitée vers ladite plaque par un ressort de verrouillage (108).

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16. Boîte selon la revendication 15, dans laquelle ledit organe intermédiaire (102) est initialement positionné entre ladite broche de verrouillage (66) et ladite plaque lorsque ladite plaque (90) est dans ladite première position, ledit organe intermédiaire pivotant dans une direction l'éloignant de ladite broche de verrouillage (66) lorsque ladite plaque se déplace de ladite première à ladite seconde position, ladite broche de verrouillage étant positionnée de façon à immobiliser la plaque après son déplacement de la seconde vers la première position.

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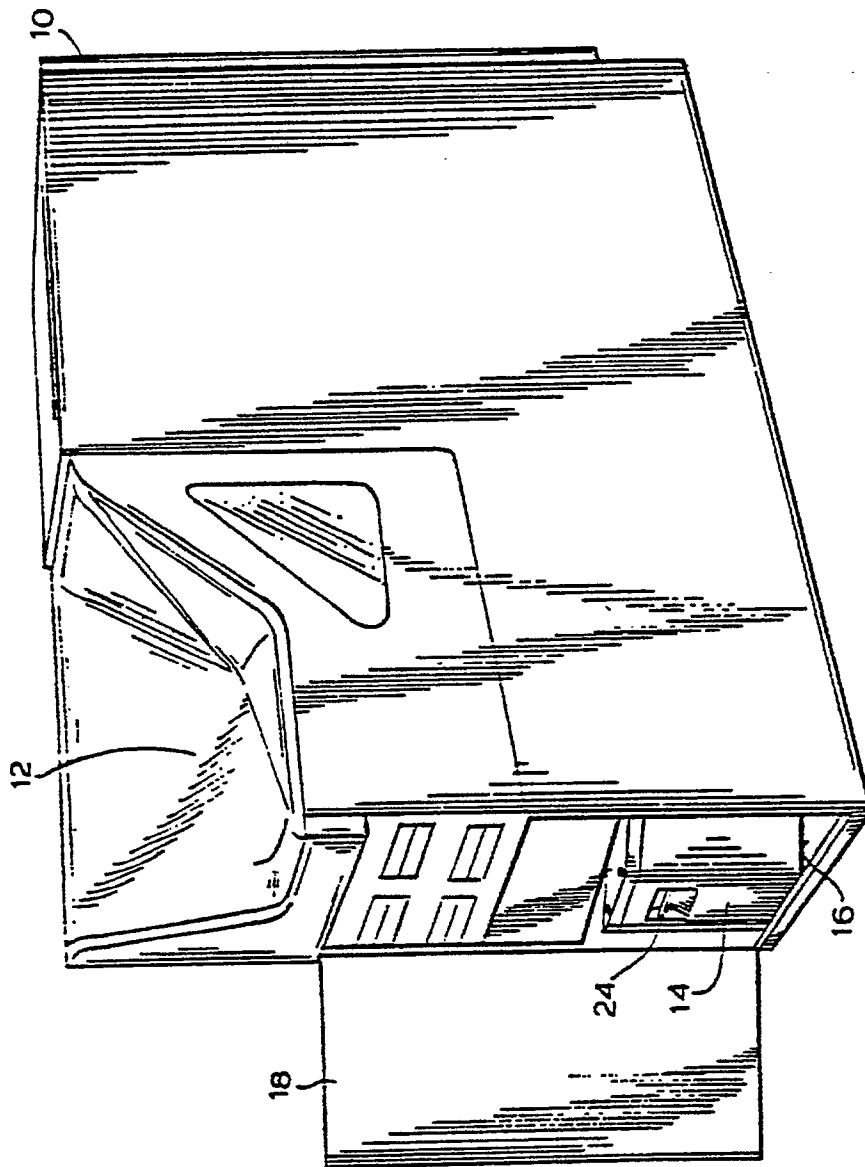


FIG. 1

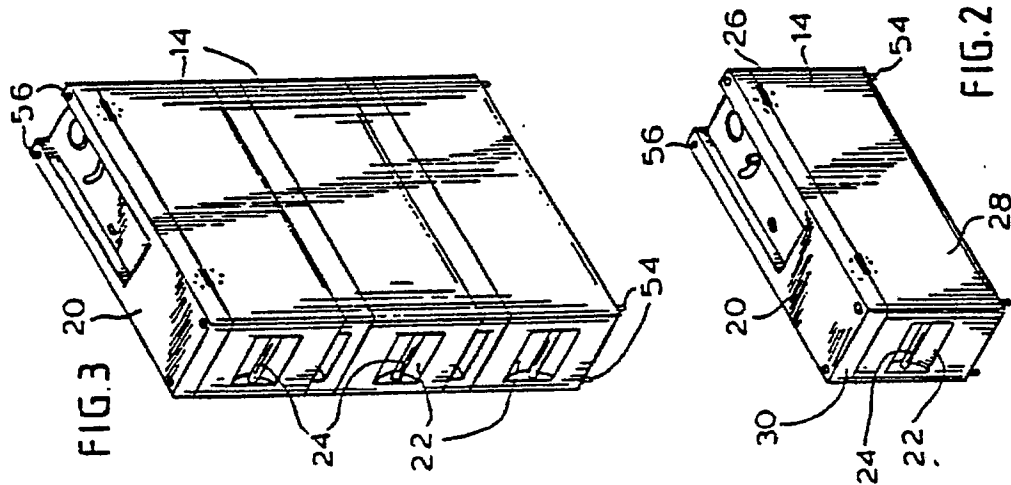
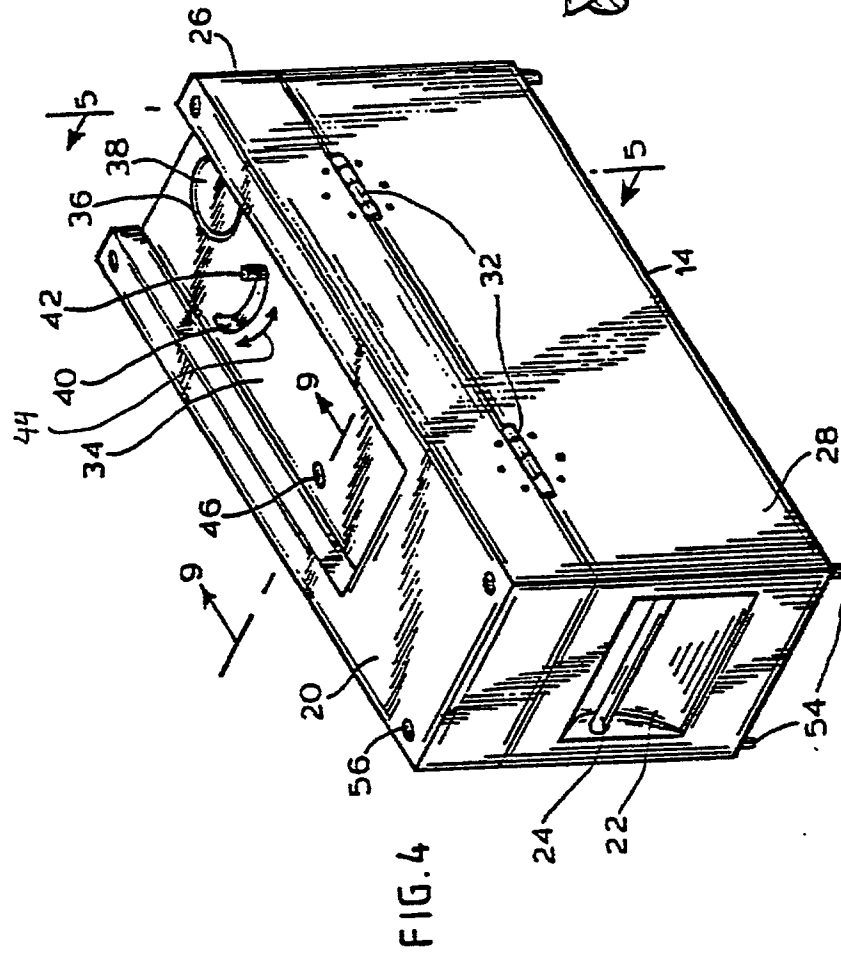
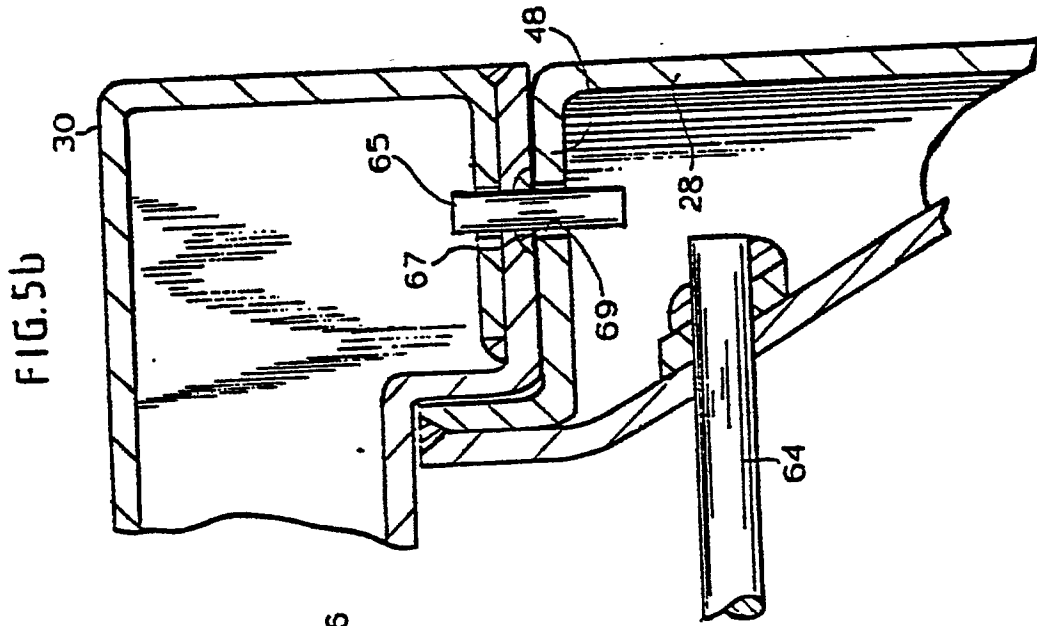


FIG. 3

FIG. 2



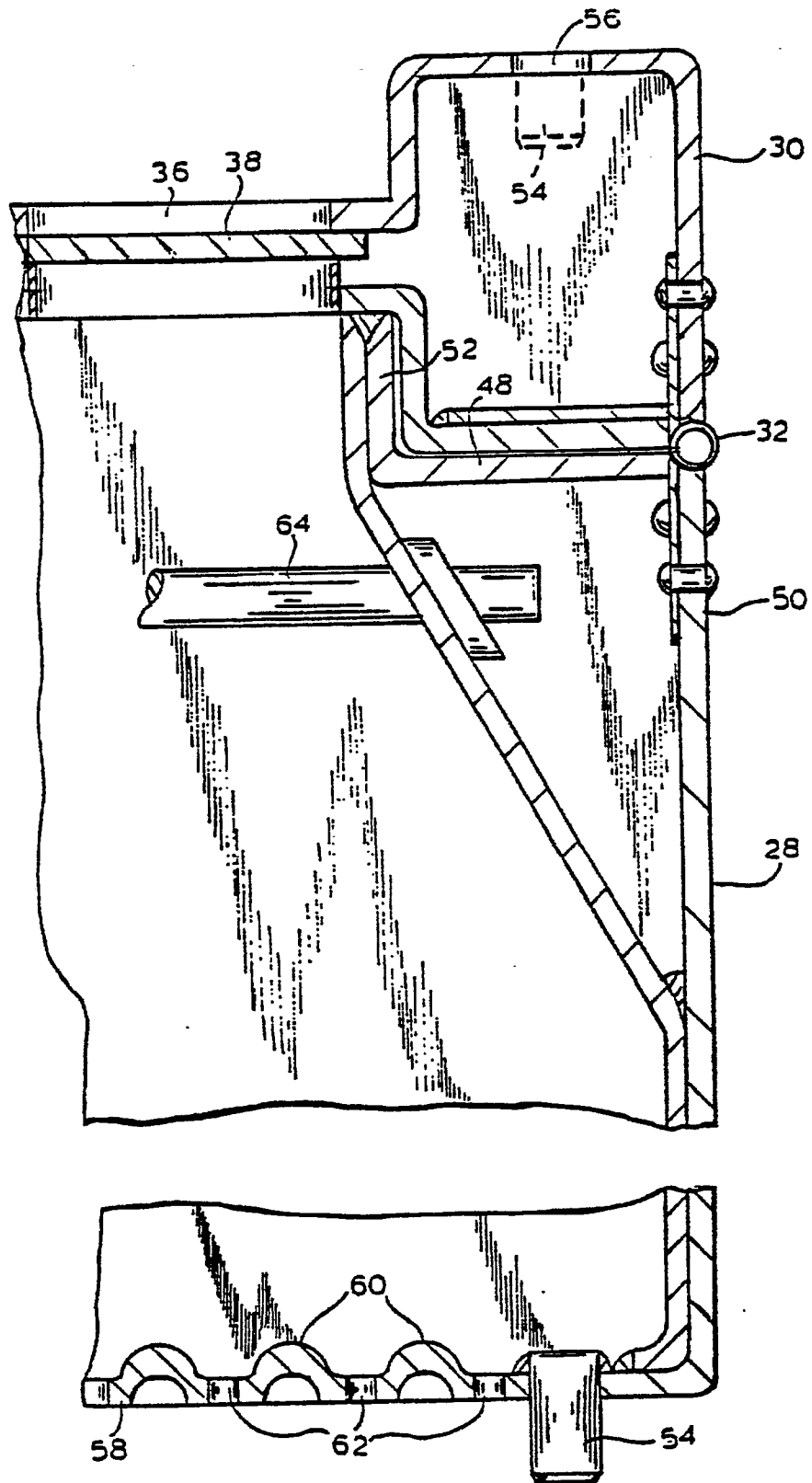


FIG. 5a

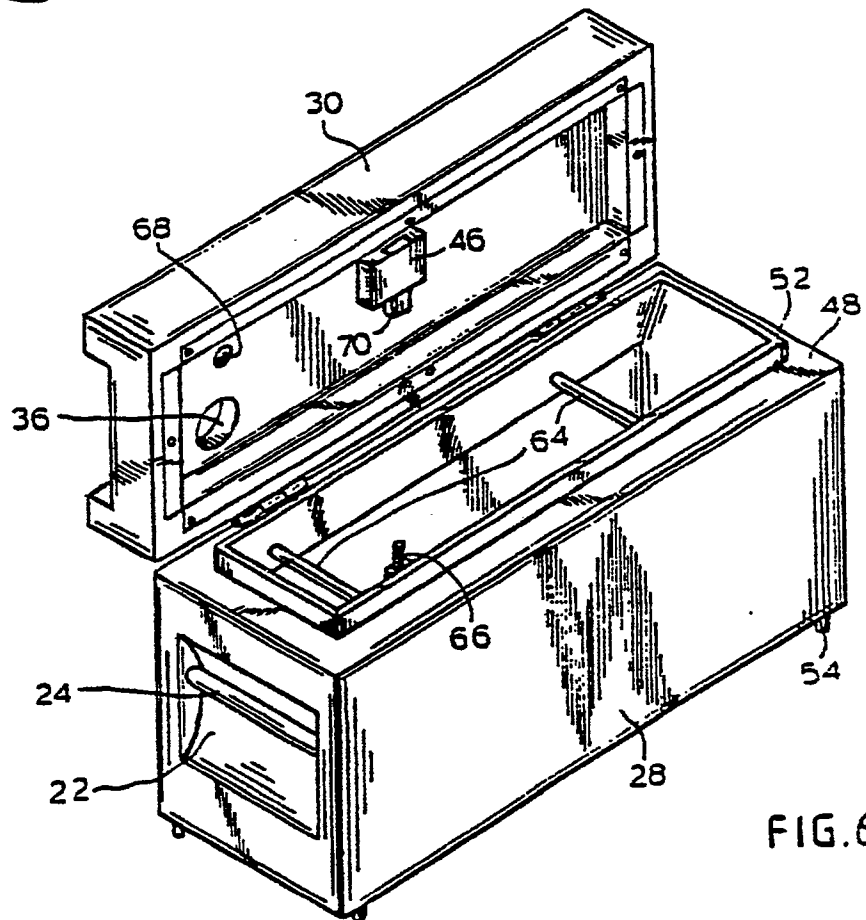
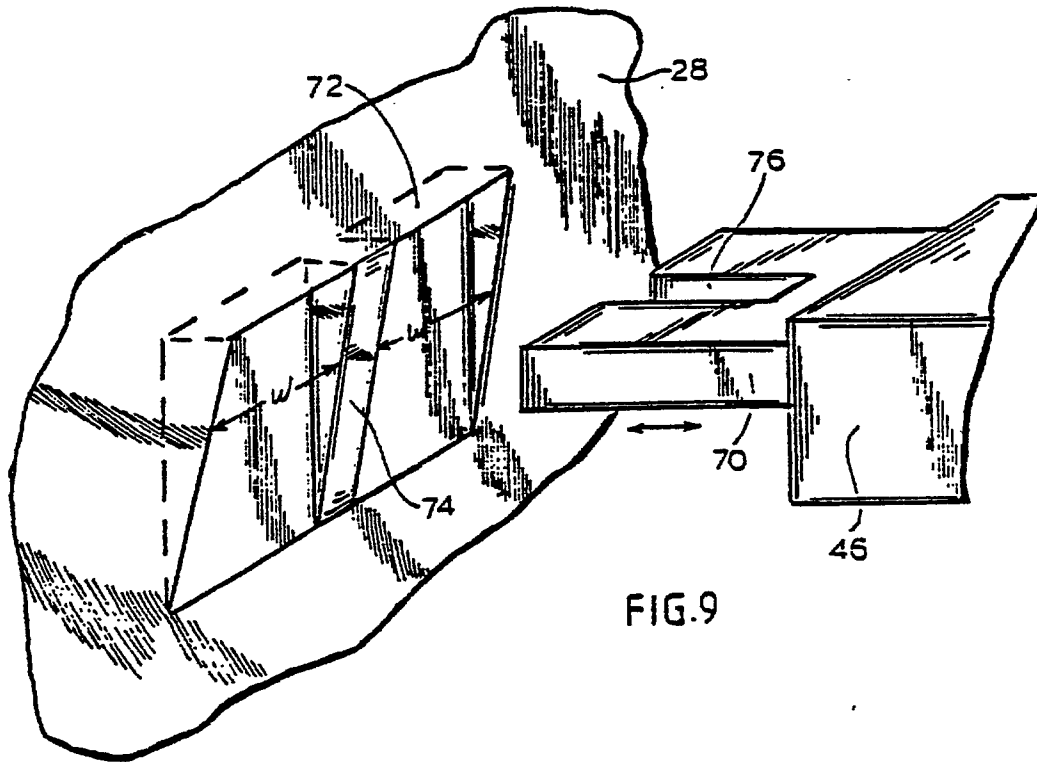


FIG.7
Prior Art

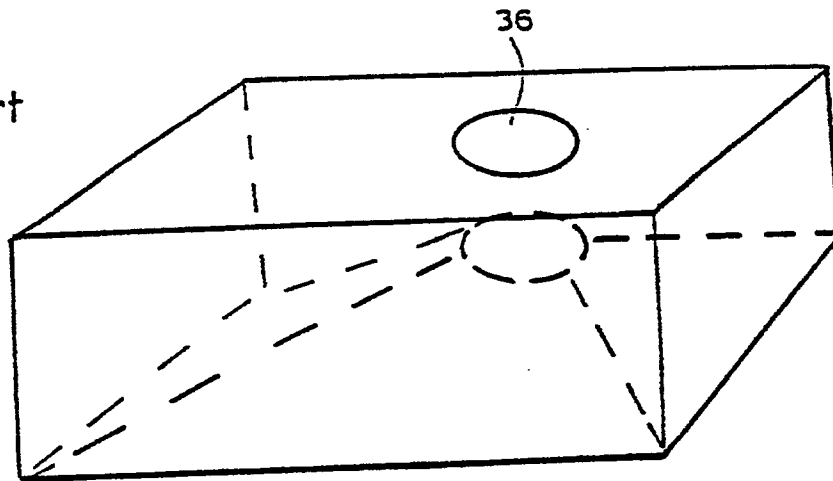


FIG.8

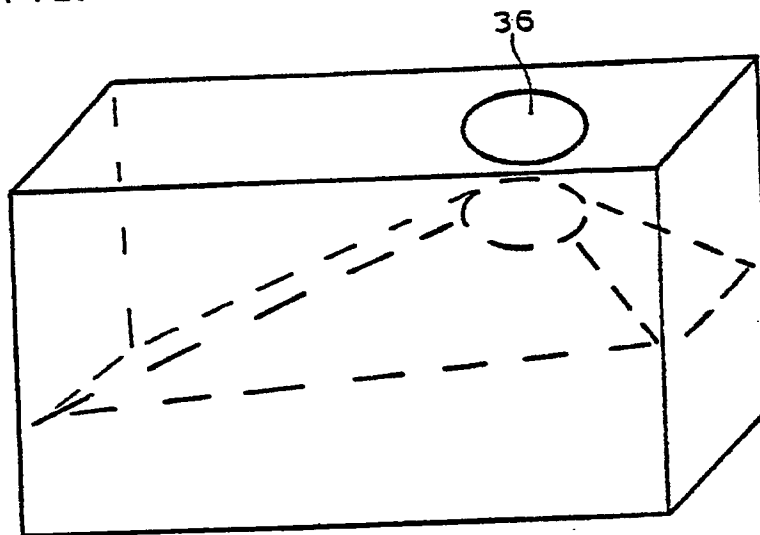


FIG.13

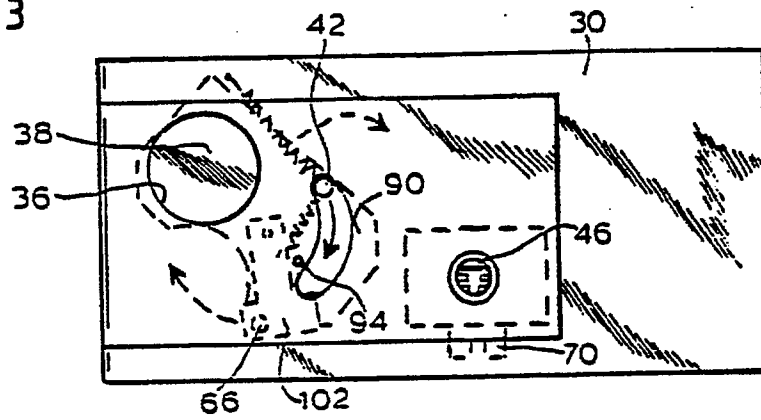


FIG.11

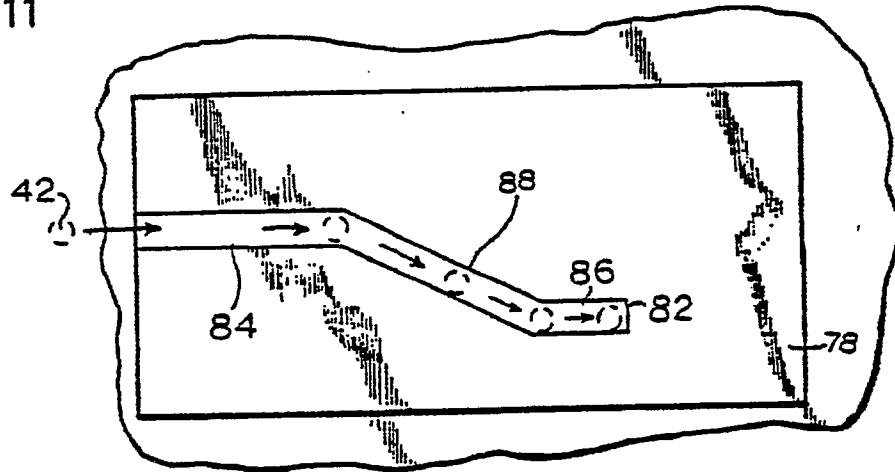
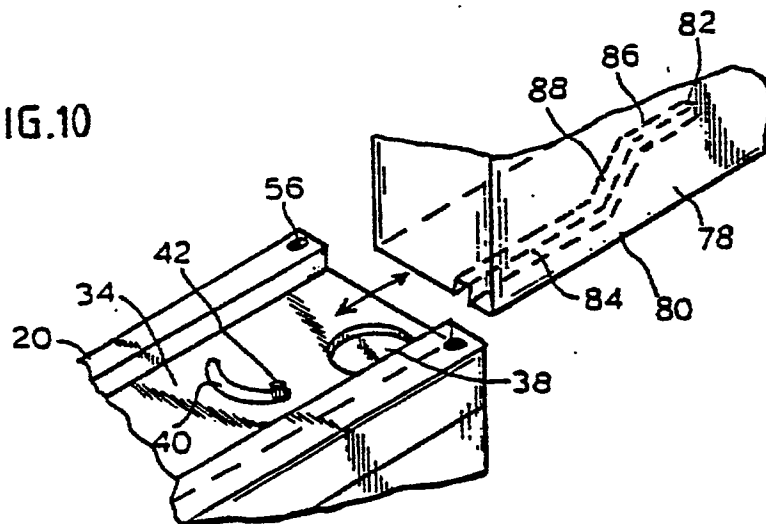


FIG.10



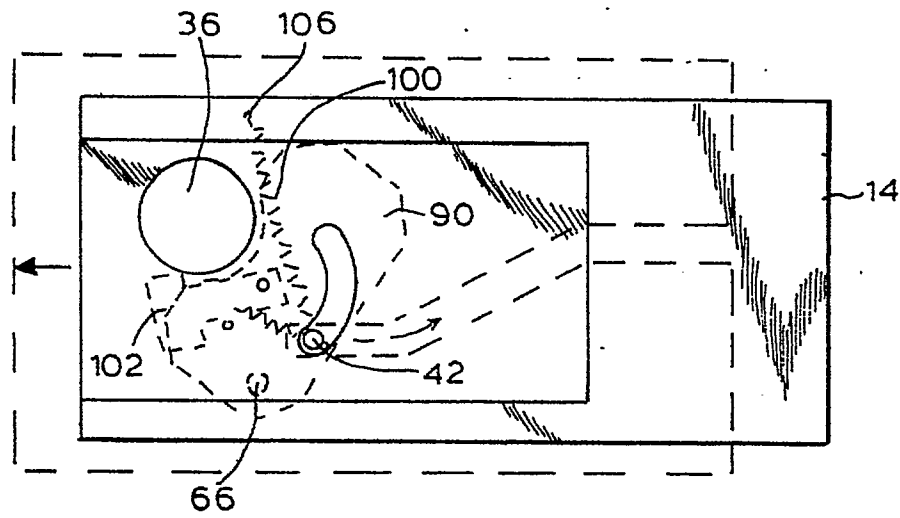


FIG. 15

FIG. 17

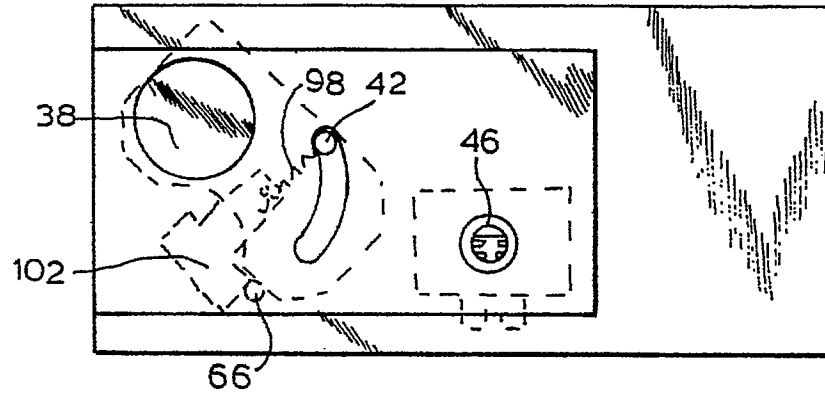


FIG. 18

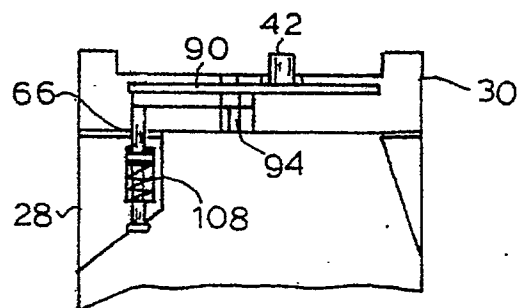
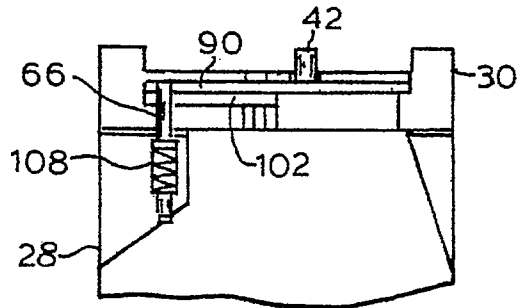


FIG. 14

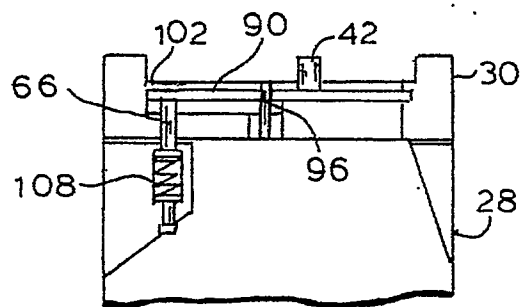
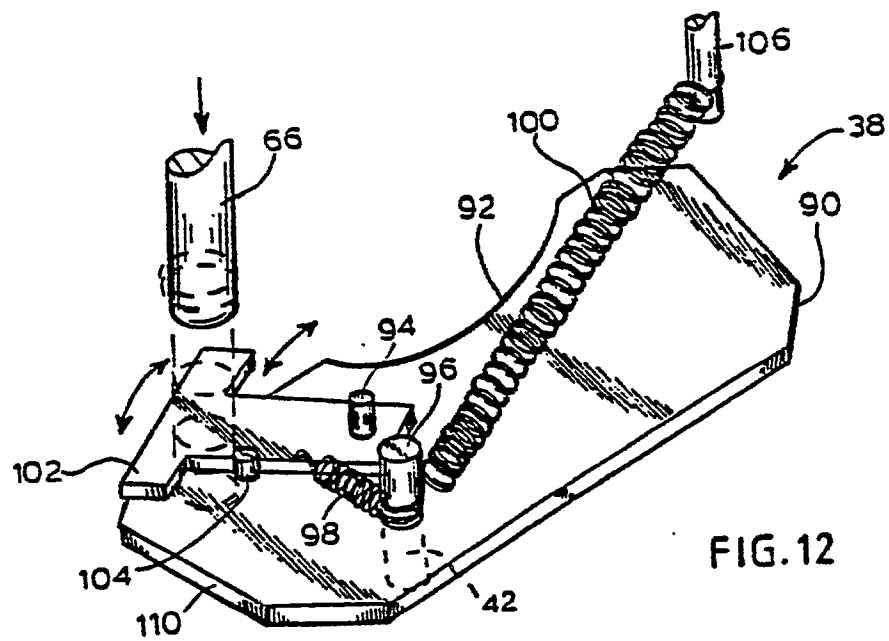
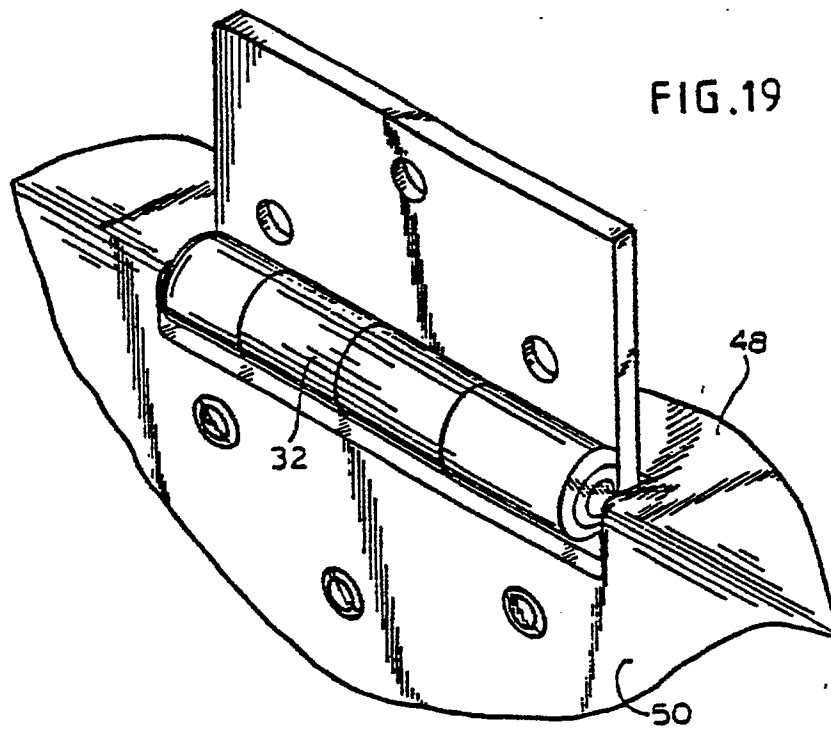


FIG. 16



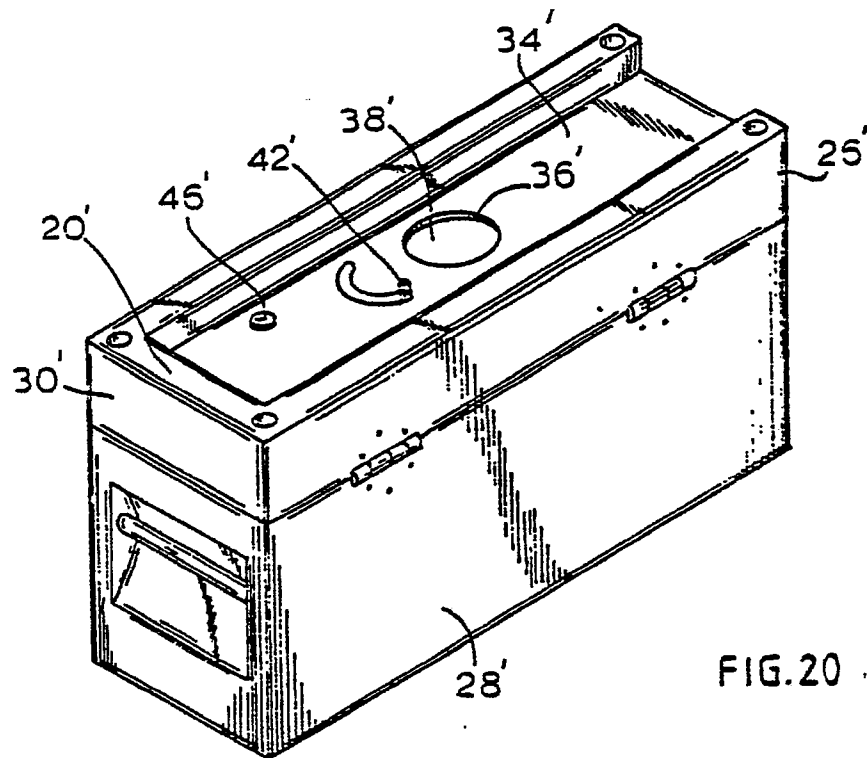


FIG. 20

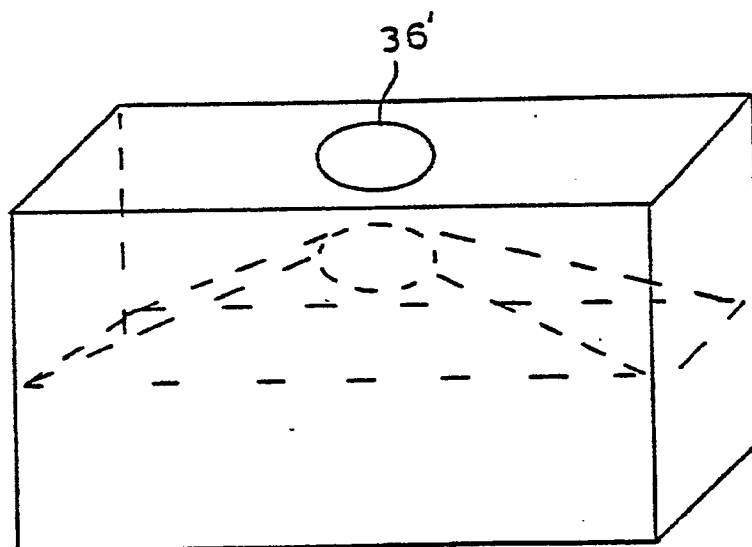


FIG. 21