Dec. 25, 1934. P. S. MILLICE 1,985,869

TEMPORARY SAFE

Filed Oct. 19, 1932

Fig. 1

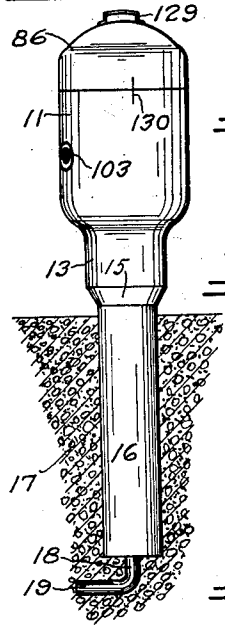


Fig. 9

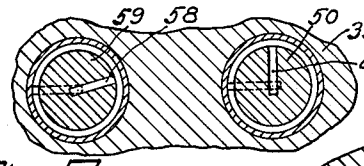


Fig. 7

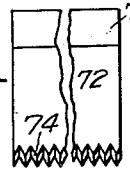


Fig. 6

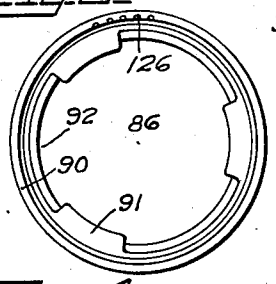


Fig. 2

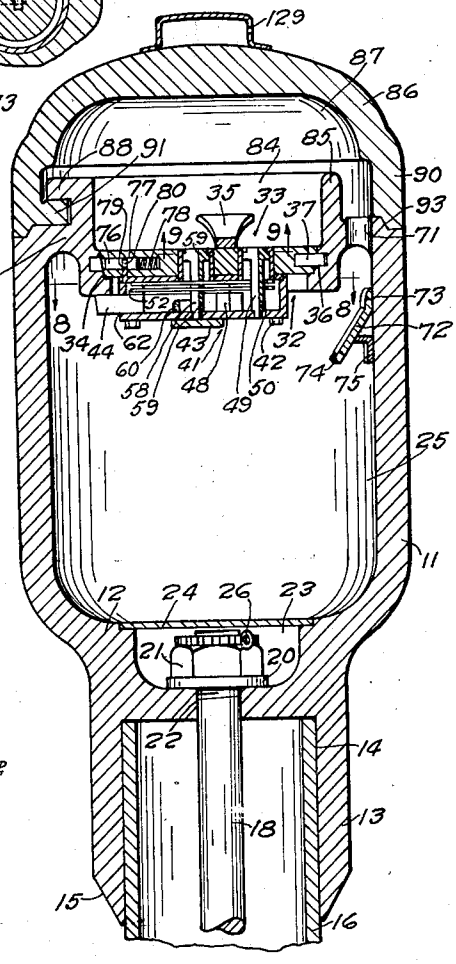


Fig. 4

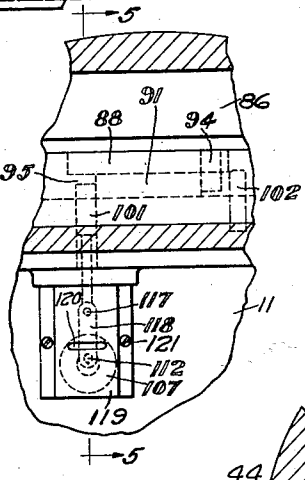


Fig. 5

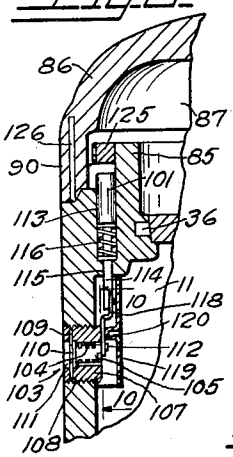


Fig. 8

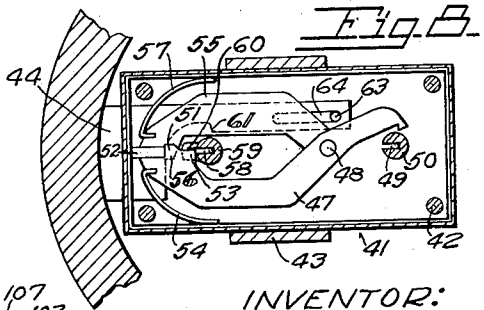


Fig. 3

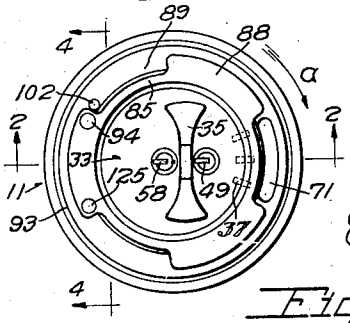
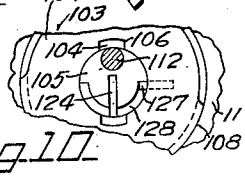


Fig. 10



INVENTOR:
Paul S. Millice,
by H. P. Herbolsheimer,
His Attorney.

Patented Dec. 25, 1934 1,985,869

UNITED STATES PATENT OFFICE

1,985,869

TEMPORARY SAFE

Paul S. Millice, Hamilton, Ohio, assignor to Herring-Hall-Marvin Safe Company, New York, N. Y., a corporation of New York

Application October 19, 1932, Serial No. 638,485

3 Claims. (Cl. 109—1)

My invention relates to temporary safes employable in stores, theaters, filling stations and other places in which it is desired to have safety for money, securities, stamps, tickets, coupon books and the like, between times of deposit of the money in the bank, during the night, or during the absence of attendants.

It is the object of my invention to provide a novel device of the character mentioned, containing a compartment accessible through a slot through which money as it is received or at stated periods may be inserted into the compartment, but not withdrawn therethrough from the compartment, the said compartment being provided with a closure normally locked by multi-control locking means, closing a larger opening through which the contents of the compartment may be withdrawn; and, further, to provide an additional compartment located in line with said first-named compartment and arranged to be closed by an outer closure, said additional compartment arranged to receive change money, tickets, coupon books and the like, during times when the device is temporarily completely locked, as at night, or during closing time or cessation of business in the place in which the device is located.

It is the object of my invention, further, to provide means for locking said first-named compartment in novel manner by locking means having a plurality of unlocking controls respectively under the control of different persons, so as to make the presence of each of said persons necessary for opening the first-named compartment, said locking means being respectively under the control of an auditor or checker and of the store or station attendant, and to provide single locking means for the second-named compartment under control, for instance, of the store or station attendant.

This makes it possible for the store or station attendant, besides having deposited the main funds or receipts during or at the end of the business period in the first-named compartment, to also lock sufficient money of different denominations for change, as well as stamps, tickets, coupon books and the like, in the second-named compartment, so that these latter may be secure until the opening of the next business period, and be available to the attendant at the opening of said next business period, the funds and securities in the first-named compartment being inaccessible until arrival of the auditor or checker, so that he and the attendant may both open the closure of the first-named compartment for access to the money and securities therein.

It is the object of my invention, further, to provide novel means for preventing unlawful withdrawal of money or securities from the main safety compartment of my improved device; further, to provide novel locking means for the same; and, further, to provide novel locking means for the outer closure of my improved device.

The invention consists in the provision and relation of the parts and in the construction and arrangement of the parts above-mentioned and hereinafter more particularly described.

The invention will be further readily understood from the following description and claims, and from the drawing, in which latter:

Fig. 1 is a side elevation of my improved device, showing the foundation in which the supporting post is imbedded in vertical axial section.

Fig. 2 is a vertical axial section of my improved device, taken in the plane of the line 2—2 of Fig. 3, with the supporting means partly broken away.

Fig. 3 is a plan view of my improved device, with the outer closure removed.

Fig. 4 is a vertical section, taken in the plane of the line 4—4 of Fig. 3, showing the locking means for the outer closure viewed from the inside of the device, and partly broken away.

Fig. 5 is a vertical section of the same, taken on the line 5—5 of Fig. 4.

Fig. 6 is a bottom view of the outer closure.

Fig. 7 is a side elevation of the protecting plate for the receiving slot of the main compartment, partly broken away.

Fig. 8 is a detail of the locking means for the closure of the main compartment, taken in the plane of the line 8—8 of Fig. 2, and partly broken away.

Fig. 9 is a detail view of the same, taken in the plane of the line 9—9 of Fig. 2, showing the rotatable key barrels with their key slots in unlocking positions in full lines and in locked positions in dotted lines; and,

Fig. 10 is a similar view of the lock for the outer closure, taken in the plane of the line 10—10 of Fig. 5.

The body 11 of the temporary safe is preferably round in cross-section and has a bottom 12 from which an apron 13 extends downwardly, forming a downwardly opening recess 14. The lower end of the apron is tapered downwardly and inwardly, as at 15. The body is preferably made of tool-resistant steel.

A tube 16, which is preferably also of tool-resistant steel and of great tensile strength, has its upper end received in the recess 14, the greater portion of the tube being imbedded and firmly fixed in a rigid roundation 17, as of poured concrete.

A rod 18 is non-rotatively fixed in the foundation, its lower end being provided with a bent portion 19 imbedded in the concrete. The main portion of the rod is inside the tube 16. The upper end of the rod is threaded and has a washer 20 and a nut 21 thereabout, the rod extending through a hole 22 in the bottom 12. The upper end of the rod and the nut are located in a recess 23 in said bottom. A plate 24 covers the recess, its margin being received in an annular rabbet in the side walls of the recess 23 and forms part of the bottom of a compartment 25 in the body 11. The nut 21 is preferably a castellated nut, a pin 26 being received in a slot of the castellation and in a hole in the upper end of the rod for preventing turning of the nut with relation to the rod.

The body 11 is secured in place by passing its annular flange or apron 13 about the upper end of the tube and passing the bottom 12 about the upper end of the rod 18 after the tube and rod have been firmly imbedded in the concrete foundation.

The washer 20 and nut 21 are received through the compartment 25 about the upper threaded end of the rod, and the nut screwed tightly about said threaded end for clamping the body 11 upon the upper end of the tube 16, whereupon the pin 26 is inserted to prevent rotation of the nut with relation to the rod. The cover plate 24 is then put in place.

The tube, body, rod and nut connection are resistant to blows, and if an attempt be made to twist the body off the tube, as by means of a large wrench about the body, the result would be merely to cause turning of the body upon the tube without detrimentally affecting the connections of the body with the tube and the foundation, and producing no harm.

The upper end of the body is provided with an inwardly extending annular flange 31, forming an opening 32 for an inner closure 33. An inner closure is arranged to close this opening. There is an annular tapered seat 34 having a shoulder at its bottom between the margin of the closure and the wall of the closure opening. The closure is provided with a handle 35.

The wall of the closure opening is provided with an annular groove 36 in which pins 37 integral with or fixed to the closure and preferably extending throughout a substantial angular distance at one side of the closure, are received when placing the closure tiltingly in place.

This closure is provided with multi-control locking means, exemplified as a lock 41, which is secured to the inner face of the closure 33 by screws 42, as well as by a strap 43 passing about the lower face and sides of the casing of the lock and secured to the lower face of the closure. The lock is provided with a locking bolt 44 arranged to be moved under the wall of the opening 32.

The lock is provided with tumblers 47 pivoted on a pin 48 fixed in the casing and controlled by a key received in a slot 49 of a barrel 50 rotatable in the casing. These tumblers are provided with arresting shoulders 51 normally in the path of movement of a lug 52 extending from the bolt 44. They are also provided with shoulders 53. The tumblers are normally moved into obstructing relation by a spring 54. The lock is also provided with tumblers 55 pivoted on the pin 48, and provided with arresting shoulders 56 in the path of movement of the lug 52. The tumblers 55 are normally moved into obstructing relation by a spring 57. These tumblers are moved by a key inserted in a slot 58 of a key-barrel 59 rotatable in the casing of the lock. The entrance of the key into the slot 58 is normally obstructed by the shoulders 53 on the tumblers 47.

The barrel 59 is provided with a bolt-moving lug 60 received in a recess in the bolt and contacting a shoulder 61 on the bolt for moving the bolt. The front end of the bolt is guided in a hole 62 in the front wall of the casing of the lock, and the rear end of the bolt is guided by a pin 63 fixed in the casing and located in a slot 64 in the tail end of the bolt.

It requires both keys to open the lock, and neither key can be withdrawn from the lock while the bolt is in unlocking relation. When the keys are in full unlocking relation, the slots of the respective key barrels are located as they are respectively shown in full lines in Fig. 9, the keys in this relation being not withdrawable from the lock. The location of the slots when the bolt of the lock is in locking relation is shown in dotted lines in said figure, in which relation the keys are readily withdrawable from the lock.

When the proper key is properly inserted in the key-slot 49 and the key is rotated into the full line position shown in Fig. 9, the tumblers 47 will have been swung on their pivot 48 for moving the shoulders 51 thereon out of range of the lug 52 on the bolt, and the shoulders 53 thereon out of obstructing relation with a key in the key-slot 58. While the shoulders 53 are in obstructing relation with the key-slot 58, as shown in Fig. 8, it is not possible for the key to be inserted into said slot for rotating the key barrel 59.

After the tumblers 47 have been swung by the key in the key-slot 49, a key may be inserted in the key-slot 58 for proper actuation of the tumblers 55. The key may then be rotated for swinging the tumblers 55, thereby moving the shoulders 56 thereon out of the path of the lug 52 on the bolt. Further rotation of the key and its key barrel causes further rotation of the lug 60 on the key barrel 59 for coaction with the shoulder 61 and retraction of the bolt.

One of the keys may be retained by the attendant of the store or station and the other by a visiting auditor or checker, and the operation of the lock by both keys will be necessary in order to unlock the closure 33 for access to the compartment 25, for withdrawal of the money or securities in this compartment and the checking of the same by both the attendant and the auditor or checker. They must also lock the lock after the closure has been replaced before the respective keys can be withdrawn.

The annular flange 31 is provided with a slot 71 through which money or securities may be passed into the compartment 25 during closed and locked relation of the closure 33. The attendant may pass the money or securities into this compartment through the slot as received or after a given sum has been received, or periodically, as may be desired. The money and securities cannot, however, be withdrawn from the compartment through the slot, and must remain in the compartment until both keys are manipulated to unlock the closure 33.

In order to additionally insure against withdrawal of contents from the compartment through the slot, a shield 72 is provided in line

with the slot. This shield is fixed to the wall of the compartment, as by a flange 73, and slopes toward the axis of the compartment, and is at its inner end preferably provided with teeth 74 to additionally protect the contents of the compartment. A bracket 75 secured to the shield and to the wall of the compartment gives additional security and prevents bending of the shield. This securing may be done by welding. The shield preferably extends laterally throughout and beyond the ends of the slot under the slot.

As an additional feature of safety for preventing unlawful access to the compartment, the closure is provided with an automatic lock which is automatically actuated if a successful attempt be made to drive the lock inwardly. A bolt 76 is located in a bore 77 in the closure 33 and is normally urged outwardly by a spring 78 between the inner end of said bolt and the bottom of said bore, the outer end of the bolt being arranged to be projected into the annular groove 36, but is normally retained within the margin of the closure by a lug 79 on the casing of the lock which is normally received in a groove 80 in said bolt.

If the lock be pushed inwardly a sufficient distance to move the lug 79 out of the groove 80, the bolt will immediately be automatically projected outwardly by the spring 78 and automatically lock the closure in place, even if the lock 41 be entirely forced off the closure.

The closure end of the body is provided with a comparatively deep cavity 84, at the bottom of which the closure is located, the cavity being partially formed by an outwardly extending annular flange 85.

An outer closure 86 is provided and has an inner cavity 87. The cavities 86, 87, form an outer compartment.

The flange 85 is provided with outwardly radially extending locking lugs 88, having spaces 89 therebetween. The outer closure is cuplike and has an annular wall 90 which surrounds the flange 85. The annular wall is provided with inwardly radially extending locking lugs 91 having spaces 92 therebetween. The locking lugs are arranged to pass through the spaces by movement of the outer closure in axial direction, and the locking lugs 91 on the outer closure are arranged to pass under the locking lugs 88 on the body on rotation of the outer closure. There is an annular seat 93 between the margin of the outer closure and the body, part of which is slanting for centering the closure upon the body.

The outer closure is rotatable in the direction of the arrow *a* (Fig. 3) when rotating the closure into locking position. Such rotation in locking direction is limited by a pin 94 fixed to one of the lugs 88 and extending into the slot 95 under the lugs 88.

A bolt 101 is arranged to be moved into the path of one of the lugs on the outer closure when the latter is in fully rotated position. The flange 31 is provided with an upwardly extending pin 102 to arrest rotation of the outer closure in the opposite direction when the locking lugs on the closure are in alinement with the spaces between the locking lugs on the body.

A lock 103 is provided for actuating the bolt 101. This is preferably a tumbler lock of the cylinder type, having a key for moving the tumbler plungers 104 within the outer periphery of the barrel 105 of the lock, the respective ends of these plungers, when in locking relation, being received in opposite slots 106 in the inner periphery of a hollow plug 107 in which the barrel is rotatable. This plug is threaded in a threaded hole 108 in the wall of the body 11. This plug has pins 109 fixed radially therein, the pins entering an annular slot 110 in a flange 111 of the barrel. The plug is suitably fixed in the wall of the body, as by peening or welding the same therein.

The inner end of the barrel is provided with a pivot stud 112 eccentrically placed thereon. The bolt 101 is axially movable in a bore 113 in the flange 31, and is provided with a stem 114 extending through a hole 115 in the bottom of said bore. A spiral spring 116 surrounds said stem between the enlarged part of the bolt and the bottom of the bore for normally urging the bolt into obstructing relation with one of the locking lugs of the outer closure.

The inner end of the stem is provided with a pivot pin 117. A link 118 has articulation at its respective ends on said pivot pin and said eccentrically placed pivot stud 112, and is movable off of said pins for disconnecting the bolt from the lock. The link is merely slipped over the ends of said pin and stud.

A retaining plate 119 is provided to maintain connected relation between the operating lock and the bolt throughout ordinary operations. This retaining plate is provided with an outwardly extending bulge 120, the outer face of which normally rests against the link. Screws 121 form a weak connection between the retaining plate and the wall of the body 11, this connection being breakable if the plunger operating the lock or its plug be forced inwardly in an unlawful attempt to open the outer closure.

If such inward forcing takes place, the retaining plate will be released from the wall of the body and drop away, and the link 118 will also be released from its connections with the bolt and the operating lock and drop away. As soon as the link is released from one of its connections the bolt is automatically moved into locking position by the spring 116.

The locking lug on the body above the bolt is provided with a specially hardened steel plug 125 in line with the bolt for making felonious access to the bolt additionally difficult. The outer closure is at its portions which are likely to be placed adjacent to the bolt provided with hardened steel pins 126 to further protect the bolt from drilling action and from felonious access.

The axis of the key barrel 105, the eccentric stud 112, the link, the connecting pin 117, and the bolt are in line, as exemplified in Fig. 4, when the bolt is in locking relation, placing these parts in dead center relation, for additional resistance to felonious movement of the bolt if access should be had from the outside of the device to the outer end of the bolt.

The locking relation of the key barrel 105 is, further, the only position during rotation of said barrel in which the tumbler plungers 104 are in line with their slots 106 in the plug 107 to permit withdrawal of the key from its key-slot 124 in said barrel, and rotation of the key barrel for unlocking relation is limited to less than an angle of 180 degrees by means of a pin 127 in the inner face of the plug coacting with the end of a rabbet 128 in said key barrel. This prevents inadvertent withdrawal of the key during unlocked relation of the bolt 101.

The outer closure may be provided with a handle 129. The proximate ends of the body and the outer closure are provided with registering marks 130, indicating a desired rotative relation between the outer closure and the body, and the handle 129 may also be placed lengthwise on the outer closure so as to be substantially in line with the lock 103 in the body, for ready ascertainment of desired relation between the outer closure and the body when assembling said outer closure on the body.

The body contains a main compartment provided with a slot through which money and securities may be passed into said main compartment, but not therefrom, an inner closure, provided with a multi-control, closing the opening of said inner or main compartment and arranged to be opened only during the presence of the plurality of persons holding the respective keys, or having knowledge of the combinations of the plurality of commutation locks, if such latter be employed as the locking means.

An outer compartment is also provided, accessible to the store or station attendant, in which such attendant may place change money, stamps, tickets, coupon books or other valuables which he employs and which he wishes to temporarily lock up during cessation of business, as at night, but which he wishes available immediately upon resumption of business, as in the morning.

This outer compartment is protected by an outer closure which also protects the inner closure and the slot for the inner compartment. Automatic means are provided for automatically locking said closures upon felonious attempts to tamper with said locking means.

My improved device is simple in construction, economical in manufacture, and provides for safety of the contents of its various compartments. I do not herein claim the supporting means of my improved device, nor the manner of attaching the safe to a floor or foundation herein shown and described, nor the tube and anchoring rod connections with the safe herein shown and described, having shown, described and claimed the same in a divisional application for Letters Patent of the United States for an improvement in Temporary safes, Serial No. 683,347, filed August 2, 1933, which has matured into Patent No. 1,959,291, dated May 15, 1934.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In a temporary safe, the combination of a body having an annular flange extending in axial direction from one end of said body and of less diameter than the diameter of said body and enclosing a cavity, an outer cuplike closure in line with said body, the cavity of said cuplike closure and said first-named cavity forming an extended compartment in axial direction, releasable connecting means between said outer cuplike closure and said annular flange, and locking means for said outer cuplike closure.

2. In a temporary safe, the combination of a body containing a compartment having a radially inwardly extending flange at one end thereof, a rotatable cup-like closure for the end of said body, said flange and the side of said cup-like rotatable closure respectively provided with locking lugs arranged to be placed in locking relation by rotation of said rotatable closure and alinement of said locking lugs in axial direction, a locking bolt in said flange movable into obstructing relation with one of said lugs on said closure, control means for moving said bolt, and drill resistance means in said side of said cup-like closure adjacent to said bolt.

3. In a temporary safe, the combination of a body having a radially inwardly extending flange at one end thereof, an outwardly endwise extending flange at the inner end of said first-named flange, a rotatable cup-like outer closure having an annular wall about said last-named flange, said last-named flange and said annular wall respectively provided with locking lugs arranged to be placed in locking relation by rotation of said rotatable outer closure and alinement of said respective locking lugs in axial direction, a locking bolt in said first-named flange for said rotatable cup-like closure, said annular wall located about the outer end of said bolt, and drill resistance means in said annular wall adjacent to said locking bolt.

PAUL S. MILLICE.