

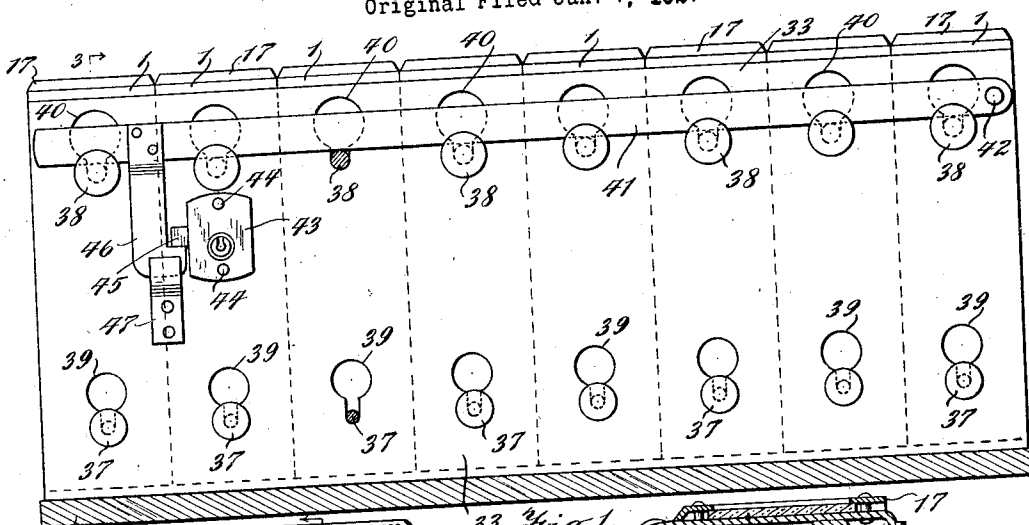
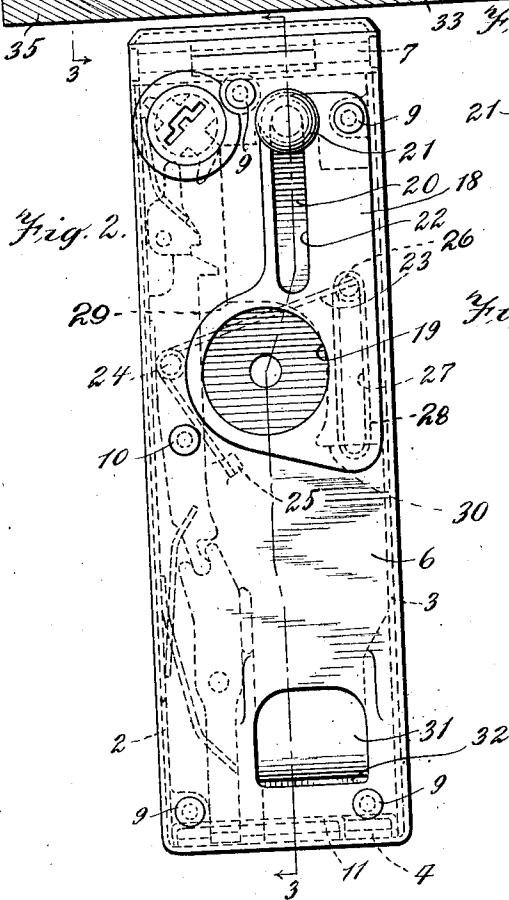
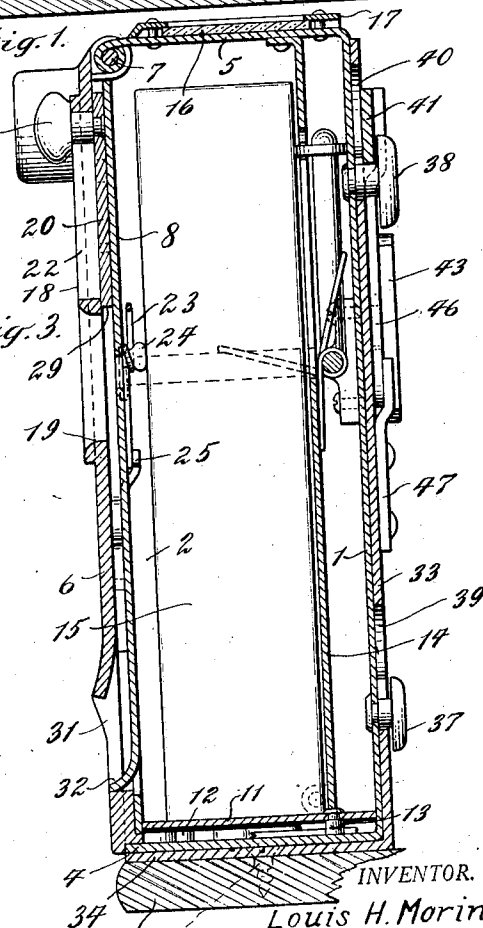
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L. H. MORIN

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SECURING MEANS FOR VENDING MACHINES

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INVENTOR.
Louis H. Morin
BY Victor D. Bost
ATTORNEY.

UNITED STATES PATENT OFFICE.

LOUIS H. MORIN, OF NEW YORK, N. Y., ASSIGNOR TO DOEHLER DIE-CASTING CO., A CORPORATION OF NEW YORK.

SECURING MEANS FOR VENDING MACHINES.

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This application is a division of my co-
pending application Serial No. 159,528, filed
January 7, 1927. The present invention re-
lates more particularly to securing means
for preventing vending machines from being
stolen. While the present invention may be
employed for guarding substantially any
type of vending machine against theft, it
has particular utility in the case of relatively
small machines, for example a machine of
that type which at one operation vends the
entire contents of its magazine, most com-
monly a single package, and known as a
unit vender. By reason of its small dimen-
sions and light weight, a machine of this
type may be more easily stolen. A bank or
series of such machines may be conveniently
arranged, and securing means according to
this invention may be employed to guard
against the theft of any of such machines.

Objects of this invention are to provide a
simple, effective, convenient and inexpensive
construction for accomplishing the above
noted results, together with other objects
and advantages which will hereinafter ap-
pear.

The invention includes various features of
construction and combinations of parts, as
will appear from the following description.

The embodiment of the invention shown
in the accompanying drawings will now be
described and thereafter the invention will
be pointed out in claims, reference now be-
ing had to the drawings, in which:

Fig. 1 is a rear elevation drawn to a re-
duced scale as viewed from the right in the
Fig. 3 and shows a plurality of the vending
machines arranged in a series and locked
in position;

Fig. 2 is a front elevation drawn to a
larger scale of one of the vending machines
shown in Fig. 1, for instance, that at the ex-
treme left, and

Fig. 3 is a vertical section taken substan-
tially on the lines 3—3 of Figs. 1 and 2 and
shows the means according to the invention
for protecting the vending machines against
theft.

The construction of the securing means by
which the invention is carried out according
to the embodiments thereof illustrated in
the accompanying drawings will now be par-
ticularly described. The securing means of
the present invention shown in the draw-

ings is the same as that disclosed in the par-
ent application above noted and the vending
machine shown is the unit vender the oper-
ating mechanism of which is fully disclosed
and claimed in that application. In view
of the fact that such operating mechanism is
not pertinent to the present invention, it
need not be particularly described herein,
but such parts thereof as appear in the draw-
ings serve the purpose of identifying the ma-
chine as to its type and general nature, while
at the same time affording an embodiment
of the present invention.

An upright rectangular casing box open at
the front and having a rear wall 1, side walls
2 and 3, a bottom wall 4, and a top wall 5 may
be formed by a stamping and welding opera-
tions from suitable sheet metal such as steel.
An outer front door plate or wall 6, which
may be a die casting, is hinged at its top to the
top wall 5 of the casing box by means of a
hinge pin 7 which is headed at both ends to
form a rivet. The door 6 carries an inner
wall or plate 8 to form in effect a part thereof
spaced therefrom somewhat more than the
thickness of a proper coin and firmly secured
thereto, such as by means of rivets 9 (Fig. 2),
these rivets passing through bosses or lugs on
the inner side of the outer door wall 6 against
which the inner wall 8 abuts, the margins of
this inner wall 8 fitting into an inner marginal
flange provided on the outer wall 6, as will be
clear from the drawings. The inner and
outer walls 6 and 8 of the door are further
secured together against possibility of spread-
ing by means of a fifth rivet 10 adjacent the
left side thereof and which also forms a pivot
pin for an operating part of the machine.

A lower inner bottom wall 11 for the cas-
ing box is spaced a short distance above its
outer bottom wall 4 and at its lateral margins
is flanged downwardly thus to rest by its
flanges on the outer bottom wall, this inner
bottom wall 11 being shown as held firmly in
place by means of a pair of front and rear
rivets 12 and 13 (Fig. 3) which pass across
the intervening space between these bottom
walls. An inner rear wall 14 for the casing
box is spaced from the outer rear wall 1 there-
of and its margins are firmly secured to the
side walls 2 and 3 and top wall 5, as shown in
Fig. 3, thereby providing a rear space which
may be utilized for an operating part of the
machine.

The rectangular space enclosed by the side walls 2 and 3, top wall 5, inner door wall 8, inner bottom wall 11 and inner rear wall 14 forms a magazine chamber to receive a package 15 (Fig. 3) of goods to be vended. Information as to the kind of goods contained in the package 15 may be supplied to customers by means of a suitable card (not shown) or slip of paper, which also may have thereon any other information or advertising matter desired, beneath a transparent name plate 16, which may be of celluloid, held in place by a frame or holder 17 secured to the top wall 5 and which may be a brass stamping.

Normally, or when the magazine chamber contains a package 15 to be vended, the door 6 is locked in closed condition, as shown in Figs. 2 and 3, and can only be unlocked to give access to the magazine chamber for the removal of the package 15 by means of a proper coin. The mechanism for locking and unlocking the door 6 need not be described. Towards its upper end and right side the outer wall 6 of the door has a raised portion 18 on its outer side (Figs. 2 and 3) by which this wall is thickened. A circular coin-receiving opening 19 of a size to receive a proper coin is provided in the thickened portion 18, through the outer door wall 6 at a middle point transversely and having its lower edge at about a middle point vertically of the wall.

A manually operable depressible coin-carrying plate 20 is slidable vertically between the outer and inner door walls 6 and 8 and is guided at its right edge by the adjacent flange of the wall 6. A handle knob 21 fixed on the upper end of the slide plate 20 projects to the outside at the front through a vertical slot 22 in the thickened portion 18 of the front plate 6, this slot forming a guide and stops for the coin-moving plate 20. The coin-carrying plate 20 when set free at its lower position will be retracted or returned to its uppermost normal position by means of a two-armed wire spring 23 having an upper transversely extending long arm, a lower inclined shorter arm and an intermediate coil forming an eye. This spring is anchored to the back of the inner door wall 8 by means of a T-headed lug 24 and a hook lug 25 both shown as punched out from the material of the plate or inner wall 8, the headed lug 24 passing through the coil or eye of the spring adjacent the left casing wall 2 and the lower arm of the spring being engaged by the hook lug 25. The upper arm of the spring 23 at its end adjacent the right casing wall 3 passes freely through the inner end portion of a stud or pin 26 which is rigidly carried by and projects rearwardly from the coin-moving plate 20, through a vertical slot 27 in the inner door wall 8 and which also forms a guide and may provide additional stops for this plate. The inner or rear side of the outer door plate 6 is provided with a shallow vertically slotted

groove 28 (Fig. 2) to accommodate a head on the pin 26 at the front of the slidable coin plate 20.

The coin-carrying plate 20 is cut away or recessed at its left side and lower end to receive the coin and to provide at the lower end of the main or body portion a coin-pushing shoulder 29 and a depending portion or leg 30. When the coin-carrying plate 20 is at its normal retracted or uppermost position (Figs. 2 and 3) its coin-moving shoulder 29 clears and is immediately above the upper edge of the coin opening 19. Should an undersized coin be inserted it will drop down between the walls 6 and 8 and will be directed to a rejection opening 31 in the plate 6 through which it will be finally guided by a concave outwardly inclined lip 32 on the inner wall 8 and punched out therefrom, thus returning any such coins to the depositor.

In accordance with the invention, means are provided for effectively guarding against the theft of the vending machine as a whole, together with its contained package 15, or with its contained coin, such means also, according to the invention, providing for supporting and guarding against the theft of a plurality of these machines arranged side by side in a horizontal series and including co-operating features of the machines themselves and of a support in common therefor. In the construction shown in the drawings the rear wall 1 of the casing of each of the vending machines (shown in Fig. 1 as eight in number) fits against the front side or face of an upright supporting and securing plate 33, the rear side or back of which is openly and freely accessible; and the bottom wall 4 of each of the vending machines rests upon a horizontal supporting plate 34 which is formed in one piece with the upright plate 33, thereby to form an L-shaped supporting and securing plate for all of the machines. This L-shaped plate is secured in fixed position upon the top of a fixed support 35 which may be, for example, the top of a counter or a shelf or the like, by means of suitable securing devices shown as screws 36, one of which appears in Fig. 3, passing downwardly through the horizontal plate 34 into the support 35 and having their heads covered by the bottom wall 4 of the machine casing, so that these screws are inaccessible for removal while the machine is in place on the plate 34.

The rear wall 1 of the vending machine is provided with a lower rearwardly projecting flat-headed stud 37, the head of which is spaced from this wall to an extent equal to or a little more than the thickness of the upright plate 33, and the inner reduced or shouldered end of the shank of this stud passes through and is riveted or upset at the inner side of the casing wall 1. The rear casing wall 1 of each vending machine is also provided with an upper flat-headed stud 38

of somewhat larger dimensions and of greater strength than the lower stud 37 and the head of which is spaced a greater distance, for example, about twice the distance of that of the lower stud 37, from the back of the rear casing wall 1, thereby to provide a longer shank for this upper stud, the inner reduced end of the shank of this stud also passing through and being riveted at the inner side of the casing wall 1.

The upright supporting and securing plate 33 has therein a lower horizontal series of key-hole slots 39 which are shown as equidistantly spaced from one another a distance substantially equal to the width of the rectangular casing box of any one of the vending machines (Fig. 1), these key-hole slots having their small ends directed downwardly and being equal in number to the number of the vending machines to be accommodated on the vertical plate 33. This upright plate 33 is also similarly provided with an upper horizontal series of key-hole slots 40 with their small ends also directed downwardly. The distance or spacing between the centers of the enlarged circular upper ends of the lower key-hole slots 39 and the enlarged circular upper ends of the upper key-hole slots 40 is the same as the spacing or distance between the centers of the lower studs 37 and the upper studs 38 carried by the rear wall 1 of the respective vending machines. The lower stud 37 passes through and interlocks in the lower key-hole slot 39 while the upper stud 38 passes through and interlocks in the upper key-hole slot 40, with the bottom 4 of each vending machine resting upon the horizontal supporting plate 34 (Figs. 1 and 3), it being noted that the head of the upper stud 38 is then spaced rearwardly from the upright supporting plate 33.

Locking means are provided to prevent the unauthorized disengagement of the studs 37 and 38 from the key-hole slots 39 and 40, and in the embodiment of the invention shown in the drawings, such means is common to all of the vending machines in the series thereof. In the particular construction shown, a straight locking bar 41 normally extends horizontally at the back of the upright plate 33 immediately above and in locking engagement with the shanks of the upper studs 38 within the space provided between the flat heads of these studs and such plate (Figs. 1 and 3). This locking bar is shown as pivoted at one of its ends on the upper right hand corner portion of the upright plate 33 by means of a pivot stud or rivet 42, so that thereby this locking bar may be swung outwardly out of engagement with the upper studs 38 or downwardly into engagement therewith, as is shown in the drawings.

A key-operated lock 43 secured, for example, by means of rivets 44, on the back of the upright plate 33 below and adjacent to

the other or free end of this locking bar, has a bolt 45 which may be withdrawn by means of a key for the lock 43 or it may be horizontally projected as shown in Fig. 1. The locking bar 41 carries a downwardly projecting catch or keeper 46, shown as a separate piece riveted to the bar, and having at its lower end a hook or shoulder to be engaged by the lock bolt 45 or to be disengaged thereby. A clip 47 on the back of the plate 33 and shown as riveted thereto is engageable by the outer side of the lower end of the catch 46 to prevent the possibility of this catch being sprung outwardly out of its engagement with the lock bolt 45. It will now be evident that only an authorized person having a proper key for the lock 43 will be able to remove any one of the vending machines from its support.

It is obvious that various modifications may be made in the construction shown in the drawings and above particularly described, within the principle and scope of the invention as defined in the appended claims.

I claim:

1. Means for guarding a vending machine against theft comprising a fixed supporting plate against one side of which a plate forming a wall of the machine casing may fit and the other side of which is exposed for access, a slot provided through one of said plates and a shouldered stud fixedly carried by the other said plate to project through the slot and by sliding movement therein to engage the other side of the slotted plate by its shoulder, a slot provided through the supporting plate parallel to the first named slot, and a shouldered stud fixedly carried by the casing plate to project through and have sliding movement in the slot in the supporting plate with its shoulder beyond and spaced from the exposed side of the latter plate, a member mounted on the exposed side of the supporting plate engageable with the shoulder of the stud which projects through the supporting plate to prevent withdrawal of this stud and also engageable with this stud to prevent sliding disengagement of the other said stud from its slot, and a lock for said member which can be unlocked only by an authorized person.

2. Means for guarding a vending machine against theft comprising a fixed supporting plate against one side of which a wall of the machine casing may fit and the other side of which is exposed for access, a key-hole slot being provided through said plate, a headed stud fixedly carried by the casing wall to have interlocking engagement with the key-hole slot and with its head spaced from the exposed side of said plate, and means movably mounted on the exposed side of said plate to engage the stud between its head and the plate to prevent the disengagement of the stud from the key-hole slot, such means in-

cluding a lock which can be unlocked only by an authorized person.

3. Means for guarding against the theft of a vending machine comprising an L-shaped supporting plate having an upright portion and a horizontal portion, means accessible only from the upper side of said horizontal portion for securing the plate in place so that a vending machine may rest upon said horizontal plate portion to cover said securing means for the plate and so that one of the upright side walls of the machine casing may fit against the adjacent upright side of said plate, a key-hole slot being provided in the upright portion of said plate, a headed stud fixedly projecting from the casing wall to have interlocking engagement in the key-hole slot with the casing resting upon said horizontal portion of the plate, the head of said stud being spaced from the exposed side of said plate, a member movably mounted on the exposed side of said plate to engage between the head of the stud and the plate in position to prevent disengagement of the stud from the key-hole slot, and a lock for said member which can be unlocked only by an authorized person.

4. Means for guarding against the theft of any one of a plurality of vending machines arranged in a substantially horizontal series side by side comprising a fixed upright supporting plate against one side of which an upright side wall of each of the vending machines may fit and the other side of which is exposed for access, an aperture being provided in said plate at the back of each of said vending machines, a shouldered stud fixedly projecting from the rear wall of each of the vending machines of sufficient length to leave a space between its shoulder and the exposed side of said plate, a transversely extending securing member engageable in said space with the shoulder of each of said studs to prevent the withdrawal of the latter, and a lock for holding said member in engagement with the studs and which can be unlocked only by an authorized person.

5. Means for guarding against the theft of a plurality of vending machines arranged side by side in a horizontal series comprising a fixed upright supporting plate having therein a horizontal series of vertically positioned key-hole slots and against one side of which plate the rear wall of each of the vending

machine casings may fit and the other side of the plate being exposed for access, a headed stud projecting from the rear wall of each vending machine to have interlocking engagement in one of the key-hole slots at the back of such machine, said studs being of a length to provide a space between their heads and the exposed side of said plate, a horizontally extending bar to engage with all of the studs and their heads for holding said studs against disengagement from their slots, and a lock for holding said bar in engagement with said studs and which can be unlocked only by an authorized person.

6. Means to guard against the theft of a plurality of vending machines arranged in a horizontal series side by side comprising an L-shaped supporting plate accessible from its back and against the front side of which the rear upright walls of the respective vending machines may fit with their bottoms resting upon the horizontal portion of said plate, means for securing the plate in fixed position rendered inaccessible by the presence of the vending machines, the upright portion of said plate having therein a lower horizontal series of key-hole slots with their small ends directed downwardly and equal in number to the number of vending machines to be accommodated, said upright portion of the plate also having therein an upper horizontal series of key-hole slots with their small ends directed downwardly and equal in number to the number of vending machines, a lower headed stud projecting from the rear casing wall of each vending machine to have engagement in one of the lower key-hole slots, an upper headed stud projecting from the rear casing wall of each vending machine to have engagement in an upper key-hole slot and the heads of these upper studs being spaced rearwardly from said plate, a locking bar pivoted at one of its ends to one end of the back of said plate to be swung downwardly into engagement with said upper studs and their heads thereby to prevent the disengagement of both sets of said studs from their key-hole slots, and a key-operated lock for securing said bar in locking engagement with said upper set of studs.

In witness whereof, I hereunto subscribe my signature.

LOUIS H. MORIN.