

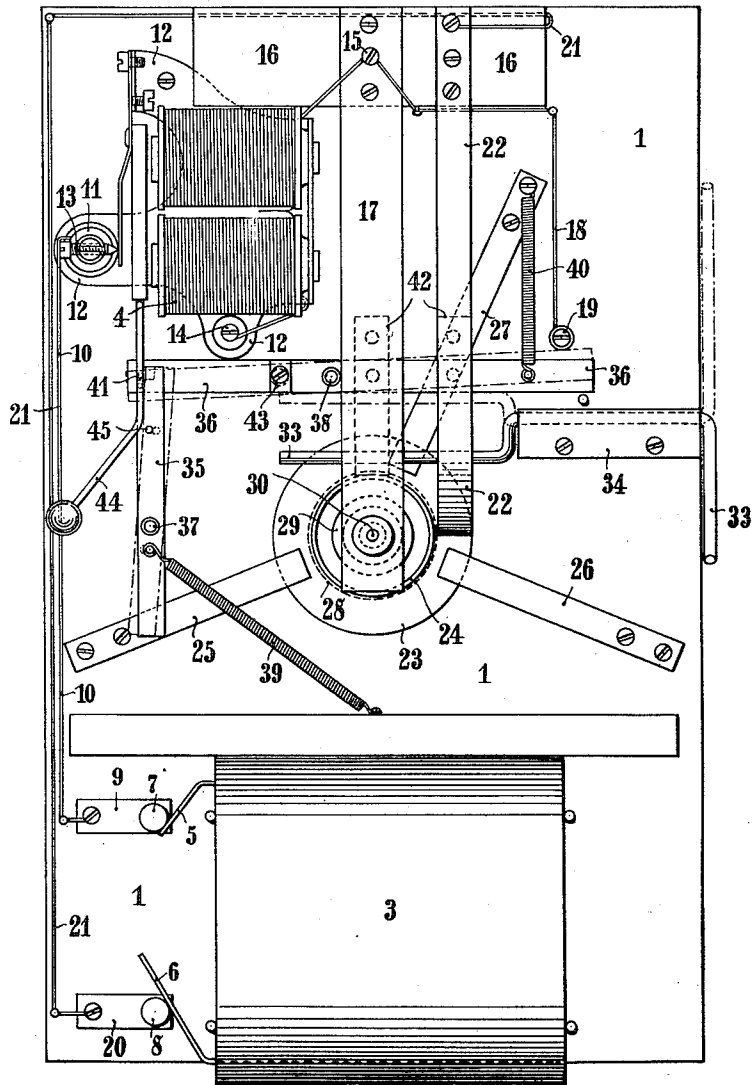
J. PALLWEBER.  
PORTABLE CASH BOX.  
APPLICATION FILED MAR. 28, 1911.

1,030,265.

Patented June 18, 1912.

2 SHEETS-SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

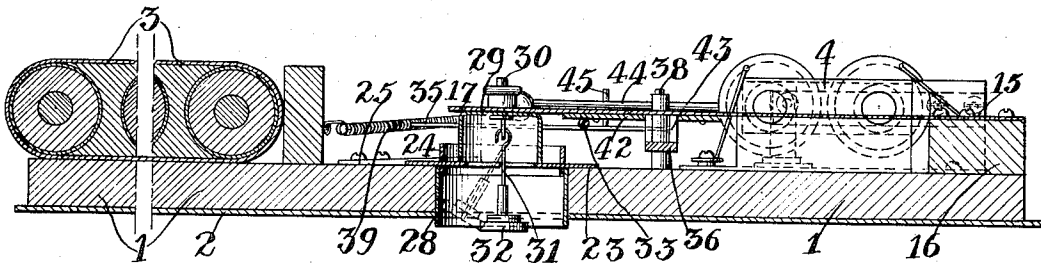


Fig. 3.

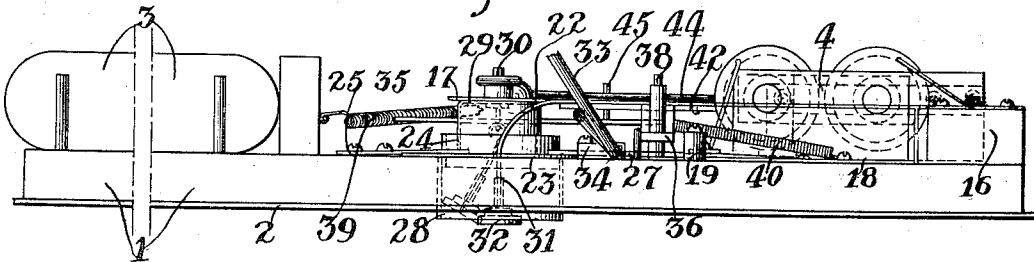
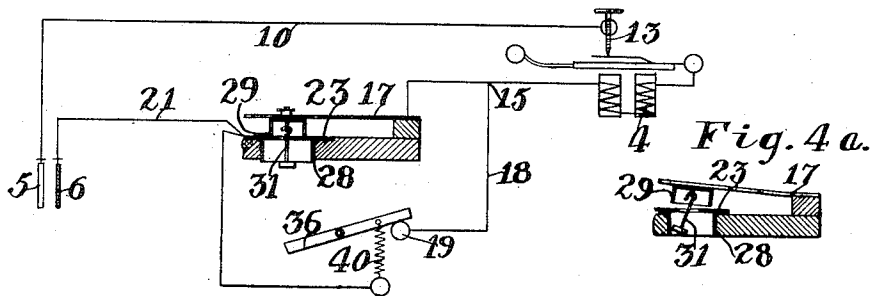


Fig. 4.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOSEPH PALLWEBER, OF MANNHEIM, GERMANY.

## PORTABLE CASH-BOX.

1,030,265.

Specification of Letters Patent.

Patented June 18, 1912.

Application filed March 28, 1911. Serial No. 617,372.

*To all whom it may concern:*

Be it known that I, JOSEPH PALLWEBER, manufacturer, a subject of the German Emperor, residing at Mannheim, in the Grand Duchy of Baden and Empire of Germany, have invented certain new and useful Improvements in Portable Cash-Boxes, of which the following is a specification.

The invention relates to a portable cash box for the reception of money, valuables, documents and the like which, as a security against thieves, is provided with an alarm apparatus. This apparatus is so provided and arranged that an electric circuit, in which a bell mechanism is provided, is closed on slightly raising or moving the cash box, and remains closed until the cash-box is opened and the circuit broken from the interior thereof. In this manner the apparatus secures the cash box against thieves as the bell mechanism, on an attempt to remove the cash box, is immediately set in operation and can not be stopped by an unauthorized person but rings uninterruptedly so that the thief can be detected anywhere that the box is taken.

In the accompanying drawings: Figure 1 is a plan view of one form of my invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a side elevation thereof. Fig. 4 is a diagrammatic view illustrating the circuit arrangement. Fig. 4<sup>a</sup> is a detailed sectional view showing certain of the parts of Fig. 4 in a different position.

On a board 1, which is inserted into the cash box and secured to the bottom 2 thereof, is provided a galvanic dry cell 3 and an electric bell mechanism 4, the former being easily removable therefrom, whereas the latter is fixed thereto. The bottom 2 of the cash box and said board 1 are each provided with a hole, approximately centrally disposed, the two holes being in alinement with each other. The pole springs 5 and 6 of the cell 3 contact with terminals 7 and 8 which are also provided on the board 1. The terminal 7 is by means of a plate 9 and a wire 10 connected to a terminal 11 which is mounted upon the base plate 12 of the bell mechanism 4, but is insulated therefrom, and in which the set screw 13 of the interrupter of the bell mechanism is mounted. One end of the magnet winding of the latter is at 14 connected to the plate 12 and the other end is at 15 connected to a flat spring 17 provided on a projection 16 of the

board 1 and further, by means of a wire 18, to a pin 19 provided on the board 1. The terminal 8 is also connected by means of a plate 20 and a wire 21 to a second flat spring 22 provided at the side of the spring 17 on the projection 16. The downwardly turned free end of this spring 22 rests, in the position shown, on the flange 23 of a metal ring 24. On the said flange further rest the free ends of three other flat springs 25, 26 and 27 which are secured to the board 1. These springs tend to hold the ring 24 with its flange 23 in the position illustrated, in which the flange rests on the board 1 and a second metal ring 28 fixed to the lower end of the ring 24 and loosely passing through the aforesaid hole in the board projects slightly beyond the bottom 2 of the cash box.

At the free end of the spring 17 there is secured, above and co-axial with the rings 24 and 28 a cap 29, and a pin 31 is suspended therefrom by a set screw 30, which pin, when the spring is in the position illustrated, has its enlarged head 32 slightly projecting beyond the lower edge of the ring 28, while the cap 29 rests on the flange 23 of the ring 24. On the board 1 there are further mounted a bent wire lever 33 in a groove of a plate 34 screwed to the board, and two straight double armed levers 35 and 36 rotatable on pivots 37 and 38 provided in the board 1. With the lever 35 engages a helical spring 39 which tends to hold it in the position indicated, and to the lever 36 is connected a helical spring 40 which tends to remove it from the position indicated and to bring it into contact with the pin 19, and which also conductively connects it to the spring 27. When the lever 35 is in the position shown this also holds the lever 36 in the position shown, as the notched end of the former is in the path of the pin 41 provided at the end of the latter. On rotating the lever 33 from the full position into the dot and dash position the free ends of the springs 17 and 22, which are each on the underside provided with a plate 42 of insulating material, are raised so that the cap 29 and the spring 22 are brought out of contact with the flange 23, and the lever 36 can be simultaneously secured in the position shown, as the inner end of the lever 33 contacts with a piece of insulating material 43 provided on the lever 36. If all the parts are in the full line position the circuit of

the cell 3 is closed as follows:—pole spring 5, terminal 7, plate 9, wire 10, terminal 11, screw 13, armature of 4, base plate 12, screw 14, magnet winding of 4, screw 15, spring 17, cap 29, flange 23, spring 22, wire 21, plate 20, terminal 8, pole spring 6, cell 3, pole spring 5. If the cash box with its bottom 2 is placed on a flat surface (for example, on a table), the latter presses at first the pin 31, 32 with the spring 17 and the cap 29 upward; thus the cap is raised from the flange 23 and thereby the circuit broken; the said surface presses then also the rings 28 and 24 upward, while the pin 31, 32 with the cap 29 are raised higher. If however the cash box is slightly raised, the springs 22, 25, 26 and 27 again press the rings 24 and 28, and the spring 17 presses the cap 29 downward, so that the latter again comes to rest upon the flange 23 thus closing the circuit in the manner above described; the bell mechanism 4 is thus put into operation. The same occurs if the cash box is slightly moved on its support; in this case the pin 31, in consequence of the friction of its head 32 on the support, is moved out of the vertical position shown into the dotted inclined position and its head 32 comes in contact with the ring 28 whereby contact is made between 17, 29 and 22, 23.

On the first attraction of the armature the hammer 44 commences to strike against a pin 45 provided on the lever 35, whereby this lever, against the action of the spring 39, is moved into the dotted position; its end is thus moved out of the path of the pin 41 so that the spring 40 also moves the lever 36 into the dotted position. The pin 41 is thus moved in front of the longitudinal edge of the lever 35 and thus prevents its return into the full line position, while the lever 36 is held in the dot and dash position by the spring 40. In this position the other end of the lever 36 engages with the pin 19 so that the circuit is closed as follows:—5, 7, 9, 10, 11, 13, 12, 14, 4, 15, 18, 19, 36, 40, 27, 23, 22, 21, 20, 8, 6, 3, 5. The bell mechanism 4 remains therefore in operation whether the cash box is immediately replaced or moved into its original position or whether the pin 31, 32 is raised, for example, by a finger. Thus, the bell mechanism, of which the hammer can beat on a bell or on the metal rear wall of the box, commences to ring immediately if the box is raised or moved and rings uninterruptedly until the cash box, which is provided with a safety lock of any known type, is opened by means of the necessary key and the two above mentioned circuits are broken from the interior thereof. This is effected by moving the lever 33 into the dot and dash position, whereby the springs 17 and 22 are raised and the lever 36 moved into the full line position. In this manner the

spring 22 and the cap 29 as well as the lever 36 are brought out of contact with the flange 23 or with the pin 19 respectively. On the return movement of the lever 36 its pin 41 releases the lever 35 so that also the latter is moved back into the full line position by the spring 39.

As already mentioned, on slightly raising the cash box the ring 28 is moved into the position shown, by the springs 22, 25, 26 and 27 whereby its lower edge projects beyond the bottom 2 of the cash box; it is therefore impossible to slide a thin plate or the like between the cash box and its support so as to prevent the movement of the pin 31, 32 which closes the circuit.

I claim:

1. A portable cash-box comprising, in combination, a suitable source of electric current and an electric bell mechanism arranged in the circuit of said source of current, a metallic member mounted in the bottom of the cash-box having a portion thereof projecting slightly beyond the bottom of the cash-box when the latter is raised, a metallic plate having a metallic cap arranged thereon adapted to contact with said metallic member, a pin attached to said metallic plate passing through said metallic cap and said metallic member and also adapted to project slightly beyond the bottom of the cash-box when the latter is raised, said pin being capable of oscillating movement so as to make electrical contact with the walls of the said metallic member, a second metallic plate having one end making contact with said metallic member, both of said metallic plates having electrical connections with said source of electric current, and the circuit through said electric bell mechanism, said metallic member, and said two metallic plates being closed when said pin projects beyond the bottom of the cash-box or when it makes electrical contact with the walls of said metallic member after it has been oscillated, means for maintaining the circuit through said bell mechanism closed when once said first named circuit has been closed, and means for breaking the electric circuit.

2. A portable cash box comprising in combination a galvanic dry cell and an electric bell mechanism arranged in the circuit of said cell, a board secured to the inside of the bottom of the cash box and supporting said cell and said bell mechanism, the bottom of the cash box and said board being provided with holes in alignment with each other, a metal ring provided with a flange and inserted into the hole in said board, a second metal ring fixed to the first ring and loosely passing through said holes, a flat spring fixed to said board, a metal cap secured to the free end of said spring above and co-axial with said rings and adapted to

come into contact with the flange of said first ring, an oscillating pin suspended from the free end of said spring and adapted to come into contact with said second ring, and  
 5 a second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, the said rings, flat springs, cap and pin being arranged in the circuit of said cell and said bell mechanism  
 0 so as to close this circuit when the cash box is raised from its support or moved thereon, substantially as described.

3. A portable cash box comprising in combination a galvanic dry cell and an electric  
 5 bell mechanism arranged in the circuit of said cell, a board secured to the inside of the bottom of the cash box and supporting said cell and said bell mechanism, the bottom of the cash box and said board being  
 0 provided with holes in alinement with each other, a metal ring provided with a flange and inserted into the hole in said board, a second metal ring fixed to the first ring and loosely passing through said holes, a flat  
 5 spring fixed to said board, a metal cap secured to the free end of said spring above and co-axial with said rings and adapted to come into contact with the flange of said first ring, an oscillating pin suspended  
 0 from the free end of said spring and adapted to come into contact with said second ring, a second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, and further flat springs all secured to said board and resting with their free ends on the flange of said first ring so as to press said flange upon said board and to cause said second ring to project slightly beyond the bottom of the cash box when the latter is raised, the said rings, first and second flat springs, cap and pin being arranged in the circuit of said cell and said bell mechanism so as to close this circuit when the cash box is raised from its support or moved thereon, substantially as described.

4. A portable cash box comprising in combination a galvanic dry cell and an electric bell mechanism arranged in the circuit of  
 5 said cell, a board secured to the inside of the bottom of the cash box and supporting said cell and said bell mechanism, the bottom of the cash box and said board being provided with holes in alinement with each other, a metal ring provided with a flange and inserted into the hole in said board, a second metal ring fixed to the first ring and loosely passing through said holes, a flat spring fixed to said board, a metal cap secured to the free end of said spring above and co-axial with said rings and adapted to come into contact with the flange of said first ring, an oscillating pin suspended from the free end of said spring and adapted to come into contact with said second ring, a

second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, two double armed levers pivotally mounted on said board, a helical spring tending to hold the first of  
 70 said levers in its normal position, a pin provided on the second of said levers normally engaging the first, a pin provided on said first lever and adapted to be struck by the hammer of said bell mechanism so  
 75 as to cause the first lever, against the action of said helical spring, to move out of the path of said pin provided on the second of said levers normally engaging the first, a contact pin provided on said board, a third  
 80 flat spring fixed to said board and resting on the flange of said first ring, and a second helical spring tending to bring said second lever into engagement with said contact pin and electrically connecting said second lever  
 85 with said third named flat spring, said rings, flat springs, cap, oscillating pin and contact pin in the circuit of said cell and said bell mechanism for closing this circuit when the cash box is raised from its support or moved thereon and holding it closed when the cash box is replaced or moved into its original position or when the oscillating pin is raised by hand, substantially as described.

5. A portable cash box comprising in combination, a galvanic battery and an electric bell mechanism in circuit with said battery, a board secured to the inside of the bottom of the cash box and supporting said battery  
 100 and said bell mechanism, the bottom of the cash box and said board being provided with alined holes, a metal ring inserted into the hole of said board and provided with a flange, a second metal ring fixed to the first ring and loosely passing through said holes, a flat spring fixed to said board, a metal cap secured to the free end of said spring above and coaxial with said rings and adapted to come into contact with the flange of said first ring, an oscillating pin suspended from the free end of said spring and adapted to come into contact with said second ring, a second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, additional flat springs also secured to said board and resting with their free ends on the flange of said first ring and serving to press said flange upon said board and causing said second ring to project slightly beyond the bottom of the cash box when the latter is raised, two double armed levers pivotally mounted on said board, a helical spring tending to hold the first of said levers in a normal position, a pin provided on the second of said levers and normally engaging the first lever, a pin provided on the first lever and adapted to be struck by the hammer of said bell mechanism to cause the first  
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lever, against the action of said helical spring, to move out of the path of the said pin on the second of said levers, a contact pin provided on said board and a second  
5 helical spring tending to bring said second lever into engagement with said contact pin to electrically connect said second lever with one of said last-named flat springs, said rings, first, second and last-named  
10 springs, cap, oscillating pin and contact pin, being in circuit with said battery and bell mechanism and closing said circuit upon

altered position of the cash box with respect to its support, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 26th day of January 1911. 15

JOSEPH PALLWEBER.

Witnesses:

AUGUST OHNIMUS,  
A. O. TILLMANN.