

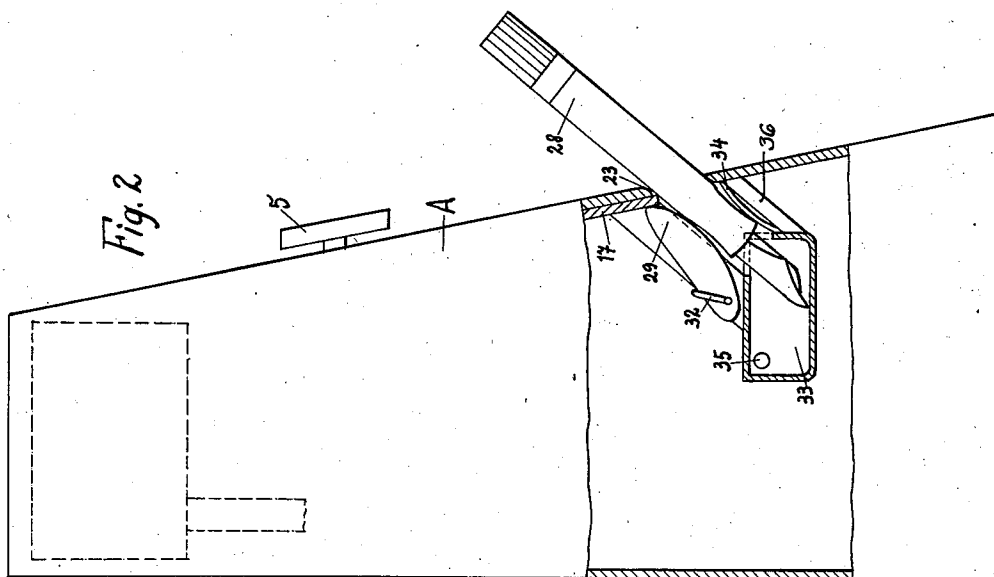
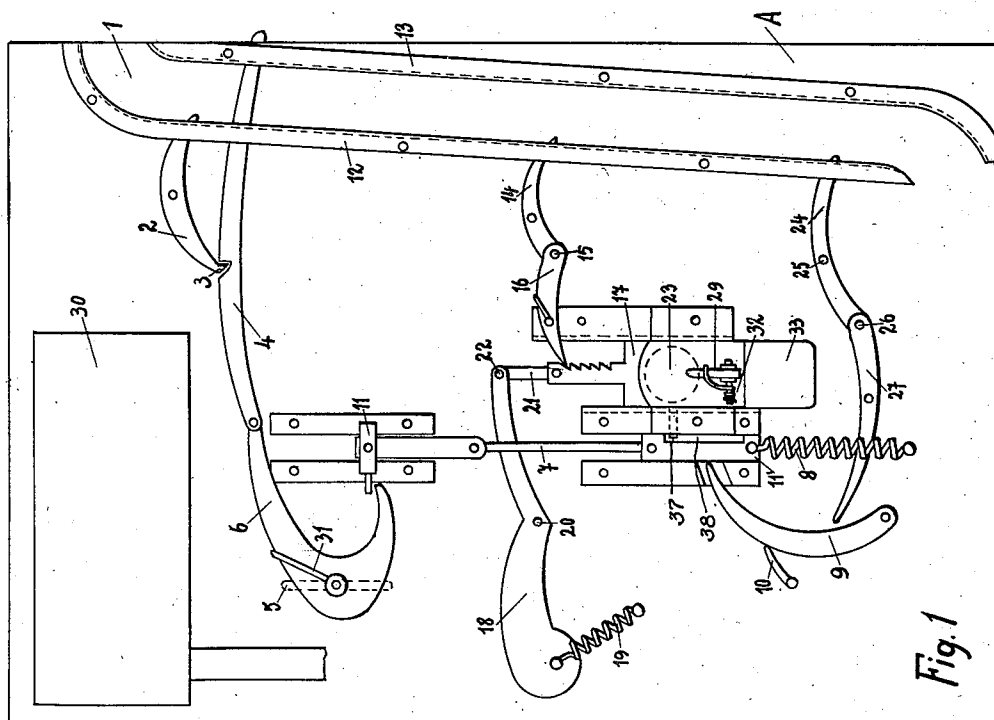
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COIN-OPERATED INK VENDING APPARATUS FOR FOUNTAIN PENS

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COIN-OPERATED INK VENDING APPARATUS
FOR FOUNTAIN PENSAdolf Fudem, Bardejov, Czechoslovakia; vested in
the Alien Property CustodianApplication February 24, 1939, Serial No. 258,276
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9 Claims. (Cl. 194—51)

This invention relates to a coin-operated ink vending apparatus for fountain pens.

The invention consists essentially in this, that by the insertion of a certain coin an opening is uncovered for allowing the fountain pen to be introduced into an ink container, which opening is held open by a locking arrangement simultaneously put in operation, the locking arrangement being brought into its inoperative position by the introduction of the fountain pen into the ink container.

In the accompanying drawing a constructional example of the invention is illustrated. Fig. 1 of the drawing is a front elevation of the vending mechanism and Fig. 2 a side elevation in part section.

In a casing A closed on all sides is an opening 1, the continuation of which forms a guide for the inserted coin, which is constituted by the rails 12, 13. In to this guide extends a lever 2 which with a catch 3 engages in a notch of the lever 4 which extends through the coin guide. The lever 4 is pivotally connected to one arm of the two-armed lever 6, the other arm of which engages under an extension of a sliding member 11. The lever 6 can be turned in opposition to the spring 31 by means of a hand actuated member 5. The sliding piece 11 is connected by means of the connecting rod 7 with a further sliding member 11' which is acted on by the tension of a powerful spring 8.

The opening 23 for the introduction of the fountain pen is in the normal state closed by the door 17 which is provided with a rack, in which engages the two-armed pawl 16 which is pivotally jointed at 15 to a two-armed lever 14. The lever 14 also extends into the coin guide. By means of the connecting rod 21 the door 17 is connected by way of a joint 22 to the two-armed lever 18 which is pivoted on the pin 20 and is loaded by the spring 19. The one-armed lever 9 bears against the sliding member 11' and is pressed against the sliding piece by the spring 10. The two-armed lever 27 coacts with the lever 9 and is connected by the joint 26 with the lever 24 which is pivoted on the pin 25 and extends into the coin guide.

To the opening 23 for the introduction of the pen 28 which is to be filled is connected a tubular guide 36 for guiding the pen into the ink well. Above this pen guide is disposed a flap 29 which is forced by a weak spring 32 into the said guide, while from below a leaf spring 34 extends into the guide. The ink well 33 can be filled through the opening 35 with ink which is taken from the

reservoir 30 arranged inside the casing A by means of a suitable pipe which for instance leads by way of float-actuated regulating means which provide a constant supply to the ink well 33.

The described arrangement operates in the following manner:

On a coin being inserted through the opening 1 into the guide 12, 13, it will first strike against the lever 2 and force the catch 3 of the latter out of the notch in the lever 4, the coin being arrested by that part of the lever 4, which extends through the guide 12, 13. Through the release of the lever 4 it becomes possible to turn the actuating member 5 by hand from an inoperative position and the lever 6 will on the one hand draw the lever 4 out of the guide 12, 13, allowing the coin to move further, and on the other hand will raise the sliding member 11 and 11' respectively to an inoperative position in opposition to the force of the spring 8. As soon as the sliding member 11' has been raised beyond the end of the lever 9, the latter is forced by the spring 10 under the lower surface of the sliding member 11' and prevents it moving back again. On the actuating member 5 being released, the levers 4 and 6 are returned by the spring 31 into their original position and at the same time the catch 3 of the lever 2 re-engages in the notch of the lever 4.

In the meantime the coin has continued to drop and will in the course of its motion have first struck against the lever 14, whereby the engagement between the lever 16 and the rack of the door 17 has been released. This enables the spring 19 to come into action and by means of the lever 18 and the connecting rod 21 to lift the door 17 and uncover the opening 23 for allowing the pen to be introduced. As soon as the door 17 has been raised, the spring 32 forces the flap 29 into the tubular pen guide 36, so that it will engage under the door 17. During its further motion the coin strikes against the lever 24, causing the end of the lever 27 to force the lever 9 out of the position, in which it engages the sliding member 11'. This enables the spring 8 to draw the sliding piece towards it, and the door 17 is carried along since a pin 37 on the door extends into a recess 38 of the sliding member 11'. This return motion of the sliding piece 11' and of the door 17 does not however cause the opening 23 to be closed, owing to the presence of the flap 29 which in the meantime has been forced into the pen guide and on which the door 17 rests.

On the fountain pen 28 being thereupon in-

introduced through the opening 23 into the ink well 33, the flap 29 is forced out of its position, in which it supports the door 17, and the door 17 will be lowered by the tension of the spring 8, until it rests on the upper side of the pen 28. The flap 29 will bear against the door 17, as can be seen from Fig. 2. The fountain pen is thereupon filled in the usual manner. After the filled pen 28 has been withdrawn, the spring 8 draws the door 17 into the original position, in which it closes the opening 23. The rack of the door 17 will prevent any undesired manipulation, the purpose of which would be to introduce quickly into the opening 23 after the withdrawal of the pen another pen, before the opening 23 closes and without the insertion of a fresh coin. As soon as the tapered end portion of the pen engages under the door 17, while the pen is being withdrawn, the door will drop slightly and, as the pawl 16 is in engagement with the rack of the door, it is impossible subsequently to raise the door for the introduction of another pen without the insertion of a fresh coin.

Those parts of the arrangement which come in direct contact with the fountain pen, are covered with felt pads which protect the pen from damage and wipe off the adhering ink.

What I claim is:

1. In coin-operated ink vending apparatus for filling fountain pens, a casing, an ink well within the casing, said casing having an opening therein through which a fountain pen may be introduced into the ink well, a door movably mounted adjacent said opening, spring actuated means biasing said door to a position to cover said opening, manually operable means connected to said spring actuated means for moving said spring-actuated means to an inoperative position, a coin guide, detent means maintaining said manually operable means in an inoperative position, means actuated by movement of a coin in said coin guide for releasing said detent means, ratchet means retaining said door in said position to cover the opening, means actuated by further movement of the coin in said coin guide for releasing said ratchet means, and means operable after actuation of the last mentioned means and after actuation of said manually operable means moving said door to a position uncovering said opening.

2. In coin-operated ink vending apparatus for filling fountain pens, a casing, an ink well within the casing, said casing having an opening therein through which a fountain pen may be introduced into the ink well, a door movably mounted adjacent said opening, spring actuated means biasing said door to a position to cover said opening, manually operable means connected to said spring actuated means for moving said spring-actuated means to an inoperative position, a coin guide, detent means maintaining said manually operable means in an inoperative position, means actuated by movement of a coin in said coin guide for releasing said detent means, rack teeth carried by said door, a pawl engaging said rack teeth retaining the door in a position to close said opening, a pivotally mounted lever moved by further movement of the coin in said coin guide for releasing the pawl from the rack teeth, and means for moving the door to a position uncovering said opening.

3. Coin-operated ink vending apparatus for filling fountain pens comprising, a casing, an ink well within the casing, said casing having an opening therein for the introduction of a fountain

pen into the ink well, a door slidably mounted adjacent said opening, a slide member, lost motion connecting means coupling the slide member to said door, yieldable means actuating said slide member so as to move the door to a position covering said opening, manually operable means connected to said slide member including a knob arranged outside the case for moving said slide member to a position whereby the door may be moved to uncover said opening, a downwardly extending coin guide, coin-operated releasable means including a lever extending into said coin guide for retaining said manually operable means in an inoperative position whereby the door may be moved to uncover said opening upon introduction of a coin into said coin guide, and means releasable upon the introduction of a fountain pen through said opening for retaining the door in a position uncovering said opening.

4. Coin-operated ink vending apparatus for filling fountain pens comprising, a casing, an ink well within the casing, said casing having an opening therein for the introduction of a fountain pen into the ink well, a door slidably mounted adjacent said opening, a slide member, means coupling said slide member to the door, yieldable means actuating said slide member so as to move the door to a position obstructing said opening, manually operable means connected to said slide member for moving said slide member in an inoperative position, a downwardly extending coin guide, coin-operated releasable means including a lever extending into the coin guide for retaining said manually operable means in an inoperative position whereby the door may be moved to uncover said opening upon movement of a coin in said coin guide, detent means engaging said slide member for retaining the slide member in said inoperative position, and means actuated by further movement of the coin in said coin guide for releasing said detent means from said slide member.

5. In apparatus for vending ink for filling fountain pens, a casing, an ink well within said casing, said casing having an opening therein through which a fountain pen may be introduced into the ink well, a movable door, means biasing said door to a position obstructing said opening, means for rendering said biasing means momentarily inoperative, means operable upon actuation of the last mentioned means for moving the door to a position unobstructing said opening, means released by the introduction of a fountain pen into said ink well for maintaining the door in said unobstructing position whereby the door will be moved by said biasing means to obstruct said opening when the fountain pen is withdrawn from the casing.

6. In apparatus for vending ink for writing pens, a casing, means within said casing for receiving a supply of writing liquid, said casing having an opening therein through which a writing pen may be introduced into the liquid supply, a movable door, means biasing said door to a position obstructing said opening, means for rendering said biasing means momentarily inoperative, means operable upon actuation of the last mentioned means for moving the door to a position for a writing pen to be introduced through said opening, means released by the introduction of the writing pen into said liquid for maintaining the door clear of said opening whereby the door will be moved by said biasing means to obstruct said opening when the writ-

ing pen is withdrawn from the casing, and means preventing reversed movement of said door during operation of said biasing means.

7. In apparatus for vending ink for writing pens, a casing, an ink well within said casing, said casing having an opening therein through which a writing pen may be introduced into the ink well, a movable door, means biasing said door to a position obstructing said opening, means for rendering said biasing means momentarily inoperative, means operable upon actuation of the last mentioned means for moving the door to a position vertically of said opening, means released by the introduction of a writing pen into said ink well for maintaining the door vertical of said opening whereby the door will be moved by said biasing means to obstruct said opening when the fountain pen is withdrawn from the casing, a coin guide, means responsive to the absence of a coin in said coin guide preventing reversed movement of the door during operation of said biasing means.

8. In apparatus for vending ink for writing pens, a casing, means within the casing for receiving a supply of ink, said casing having an opening therein through which a writing pen may be introduced into the ink supply, a movable door, ratchet means maintaining said door in

a position obstructing said opening, coin-controlled means for releasing said ratchet means, means operable upon the release of said ratchet means for moving said door to a position unobstructing said opening, means movable to a position to be engaged by the writing pen when inserted into the ink supply releasably retaining said door in a position unobstructing said opening, and means for moving the door to a position to obstruct said opening when the pen is withdrawn from the casing.

9. In apparatus for vending ink for writing pens, a casing, an ink well within said casing, said casing having an opening therein through which a writing pen may be introduced into the ink well, a movable door, means biasing said door to a position obstructing said opening, means for rendering said biasing means inoperative, spring-operated means of less force than said biasing means moving the door to a position unobstructing said opening when the biasing means is inoperative, means released by the introduction of a writing pen into said ink well for maintaining the door in said unobstructing position whereby the door will be moved by said biasing means to obstruct said opening when the fountain pen is withdrawn from the casing.

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