

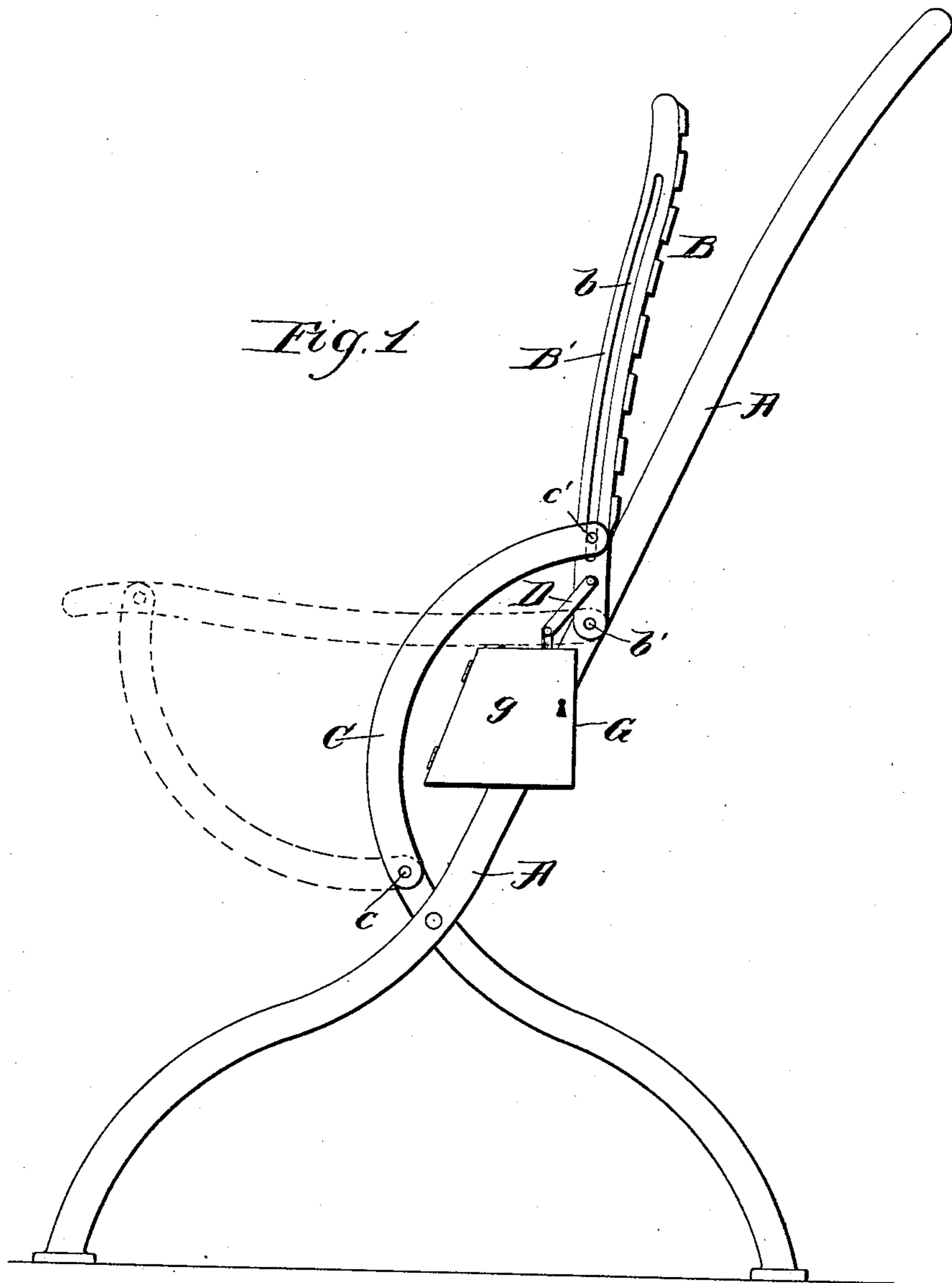
(No Model.)

2 Sheets—Sheet 1.

H. E. PERRY.
COIN CONTROLLED MECHANISM.

No. 481,816.

Patented Aug. 30, 1892.



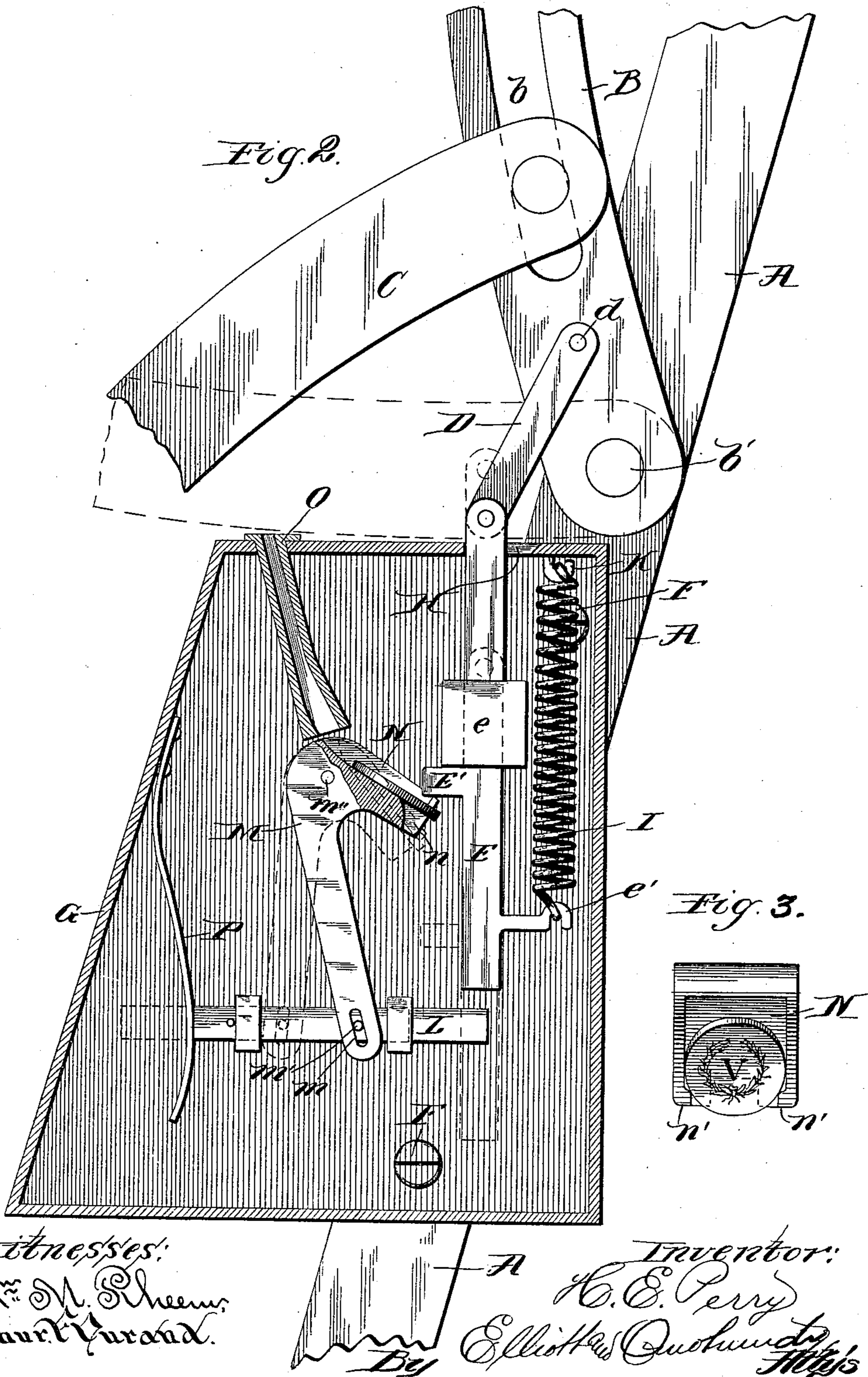
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UNITED STATES PATENT OFFICE.

HOWARD E. PERRY, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED MECHANISM.

SPECIFICATION forming part of Letters Patent No. 481,816, dated August 30, 1892.

Application filed February 1, 1892. Serial No. 419,969. (No model.)

To all whom it may concern:

Be it known that I, HOWARD E. PERRY, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Coin-Controlled Mechanism, of which the following, in connection with the accompanying drawings, is a full, clear, and exact specification.

My invention relates generally to improvements in mechanism in which a coin of predetermined denomination must be inserted before the device can be actuated; and it relates more particularly to that class of devices employed for locking the members of chairs used at places of public resort or entertainment in such a position as to preclude the use of the chair until a coin of the requisite value has been deposited for causing the locking mechanism to be actuated.

The object of my invention is to provide a device of this character which shall be very durable and simple of construction and especially adapted to withstand the elements and rough usage, and yet occupy but comparatively little space and be certain and effective in its operation.

My invention consists in certain features of novelty in the construction and combination of parts, by which these ends and certain other ends, hereinafter described, are attained, and which will now be fully described with reference to the drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a side elevation of a chair provided with my improvements. Fig. 2 is a detail view on an enlarged scale, partly in section, showing the coin-controlled mechanism; and Fig. 3 is a detail plan view of the coin pan or receptacle, hereinafter described, showing a coin lodged therein.

In the drawings, wherein like signs of reference refer to like parts throughout the several views, A indicates the chair-frame, which may be of any suitable construction and material; but I prefer that it shall be of the X pattern or form, as shown, which is provided with a hinged or folding seat B and a brace C, preferably on both sides, pivoted at c to the frame proper and having a sliding connection with the seat, so that when the seat is in its lower position ready for occupancy,

as shown in dotted lines, Fig. 1, the braces C will form an adequate support for it at its outer edge. This sliding connection between the upper end of the braces C and the seat B may be made in any suitable and well-known manner; but I prefer that it shall consist of a lug or stud c' on the side of each of the arms C and a longitudinal slot b, formed in the side portions B' on each side of the seat, and in which slots the studs c' fit and travel when the seat is oscillated on its pivot or hinge b'. The purpose of having the seat hinged or pivoted in this manner, it will be understood, is to enable it to be folded upward against the back of the chair, so as to preclude the use of the chair until the proper coin has been deposited, and it will therefore be seen that any other member or portion, whether a part of the chair or some extra part pivoted securely to the chair and held by the coin-actuated locking mechanism in such a position as to preclude the use of the chair, would answer the purpose; but for reasons too obvious to require explanation I prefer that the seat itself should be pivoted and controlled by the coin-actuated mechanism. This pivoted seat B is connected at a point near its pivot by means of a short link or pitman D with the plunger or actuating-bar E of the coin-controlled mechanism, which I will now particularly describe.

Securely fastened to the side of the frame A on one side of the chair by means of screws or bolts F or other suitable devices is a closed box or casing G of any suitable construction or pattern, provided on one side with an appropriate door g, having a lock or other suitable fastening device. The plunger E is preferably arranged vertically within the box G in a vertical sleeve or guide e and has its upper end protruding from the box through a slot or opening H in the top thereof and being pivoted at its upper end to the lower end of the link or pitman D in any suitable manner, while at or near its lower end it is provided on one side with a hooked lug or projection e', to which is secured the lower end of a stout spiral spring I, whose upper end is fastened to the top of the box or other stationary part by means of a hook K. Thus it will be seen that the inertia of the spring I, acting through the medium of the plunger E

and link or pitman D, will exert a normal tendency to hold the seat of the chair in its upper or elevated position, as more clearly shown in Fig. 1, and that when pressure is applied to such seat it may be forced into its horizontal position, expanding the spring and lowering the plunger to the position indicated in dotted lines when such movement of the plunger is not opposed. In order, therefore, that the movement of the plunger and consequently the movement of the seat may be resisted until a coin of the proper size or denomination has been deposited, I arrange within the box G, slightly below the end of the plunger E when it is in its normal or elevated position and preferably at right angles thereto, a sliding bolt L, against which the end of the plunger E impinges, unless such bolt has prior to the descent of the plunger been shifted from under the latter; but in order that the plunger E may be free to descend when a coin of the proper size or denomination has been deposited I connect such bolt L to the longer arm of a bell-crank lever M by means of a slot-and-pin connection $m m'$, while the shorter arm of this lever is provided with a pan or receptacle N, which constitutes a coin-support and in which a coin may be deposited through the coin slot or chute O and held in the path or line of movement of a nose or projection E' , formed on the side of the plunger E. Therefore when a coin is lodged in the pan N it will be struck by the nose E' as the latter descends, thus causing the bell-crank lever M to oscillate on its pivot m'' , and thereby shift the bolt L from under the plunger E into the position shown in dotted lines before such plunger has descended far enough to strike the bolt; but if there be no coin in the pan N the nose E will simply descend through a slot or notch n in the end of the pan or short arm of the bell-crank without affecting the position of said bell-crank or shifting the bolt L, and hence the seat at such time can be moved downward but a very slight distance before its movement will be arrested by the engagement of the plunger with the bolt L. The parts are so timed that the bolt L will be out of the line of movement of the plunger E by the time such plunger reaches the plane or upper edge of the bolt, and the distance between the pivot b' of the seat and the pivot d , which connects the upper end of the link D to the side piece B' , is such that the plunger E can never descend far enough to bring its nose E' below the bolt L. Hence when the pressure is removed from the seat—that is to say, when the seat is vacated—the plunger E will be free to rise and force the seat upward under the influence of the spring I, and in doing so its nose E' will ascend through the notch or slot n in the end of the coin-pan, and thereby dislodge the coin therefrom if it should remain until such movement takes place. This, however, would seldom be the case, because as soon as the coin is passed by the nose E' in the downward movement of

the plunger a blade or other suitable spring P, secured to the side of the box G and bearing against the end of the bolt L, causes the pan N to rise until the bolt comes in contact with the side of the plunger E, and this sudden arrest of the pan E in its upward movement will almost invariably eject the coin therefrom. The pan N is preferably inclined when in its normal position, so as to permit the coin to readily slide thereinto from the coin-chute O, and it is so formed that the coin may lie therein with its broad side presented toward the nose E' , it being provided at its lower end, preferably on each side, with a stop n' , which stops are of sufficient distance apart to permit a coin of a different denomination or size from the one for which the pan is designed to immediately slip between them down into the box G without enabling the depositor of it to operate the machine through the medium thereof. As shown in the drawings, the pan or coin-support is so inclined downwardly that its outer edge or end adjacent to the plunger will be below or at least as low down as the pivot m'' of the lever, thus causing the said support to begin to move away from the plunger the moment the coin is struck by the nose E' , and consequently the range of movement of the lever is much less than it would be if the edge of the support were arranged above the pivot m'' and had to swing toward the plunger before the nose could pass the coin.

While it is very desirable that the spring I should be located entirely within the casing G, so as not to be tampered with, it is nevertheless very obvious that such spring might be on the exterior of the casing and connected with some part of the chair and directly to the seat, instead of being secured to the plunger E, as shown; and while it is desirable that the coin should lie upon its side on the upper arm of the bell-crank lever, for the reason that when in such position it necessitates but a very slight movement of such short arm in order that the projection or nose E' may clear it without causing a very extensive movement of the bolt, it is nevertheless obvious that, if desired, the short arm of the bell-crank may be so arranged as to hold the coin on edge and a spring pawl or dog used, instead of the rigid projection E' , for impinging the coin in its downward movement, but slipping past said arm of the bell-crank in its upward movement without affecting the latter.

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

1. In a coin-controlled locking mechanism, the combination, with the member to be locked, of a casing having a coin-slot, a pivoted bell-crank lever having a coin-support formed on one of its arms, and the outer edge of such support being at least as low as the pivot of said lever, a plunger connected to said member to be locked and adapted to

oscillate said lever through the medium of a coin on said support, and a bolt arranged in the path of said plunger and connected with said lever, substantially as set forth.

5 2. In a coin-controlled locking mechanism, the combination, with the member to be locked, of a casing having a coin-slot, a pivoted lever having a coin receptacle or pan, a plunger connected to said member to be
10 locked and adapted to oscillate said lever through the medium of a coin thereon, a sliding bolt arranged in the path of said plunger, and a pin-and-slot connection between said lever and bolt, substantially as set forth.

15 3. In a coin-controlled locking mechanism, the combination, with the member to be locked, of a casing having a coin-slot, a pivoted lever having a notched or slotted coin-support, a plunger connected to said member
20 to be locked and having a portion adapted to rise and fall through said notch, so as to oscillate said lever through the medium of the coin thereon, a bolt arranged in the path of said plunger and connected with said lever,
25 and springs for returning said plunger and bolt to their normal positions, substantially as set forth.

4. In a coin-controlled locking mechanism, the combination, with the member to be
30 locked, of a casing having a coin-slot, a pivoted lever having a slotted pan for detaining a coin therein, a plunger connected with the member to be locked and having a portion adapted to rise and fall through said slot in said coin-
35 pan, and a bolt connected to said lever and arranged in the path of said plunger, substantially as set forth.

5. In a coin-controlled locking mechanism, the combination, with the member to be
40 locked, of a casing having a coin-slot, a pivoted lever having a slotted inclined open-ended pan provided with lugs or stops for detaining a coin, a plunger connected with the member to be locked and having a portion
45 adapted to rise and fall through said slot, and a bolt connected to said lever and arranged in the path of said plunger, substantially as set forth.

6. In a coin-controlled locking mechanism,

the combination, with the member to be 50 locked, of the casing having a coin slot or chute, a pivoted bell-crank lever having an inclined coin-pan on one arm thereof provided with a slot in its end, a sliding bolt connected to the other arm of said bell-crank, a spring 55 for sliding said bolt in one direction, a plunger arranged to strike said bolt, having a nose adapted to pass through the slot in said pan, a link connecting said plunger with the member to be locked, and a spring fixed at one 60 end and secured to said plunger at its other end, substantially as set forth.

7. In a coin-controlled mechanism, the combination, with the member to be locked, of a casing having a coin-slot, a pivoted lever hav- 65 ing a flat coin-pan formed on one arm thereof, adapted to support a coin broad side uppermost, said pan being provided with stops on both sides for arresting the coin, a plunger connected with the member to be locked and 70 adapted to oscillate said lever through the medium of a coin thereon, and a bolt arranged in the path of said plunger and being operated by said lever, substantially as set forth.

8. In a coin-actuated locking mechanism, 75 the combination, with the casing having a coin-slot and the member to be locked, of a lever having a coin pan or support, a plunger for oscillating said lever through the medium of a coin thereon, a sliding bolt for arresting 80 the movement of said plunger, and a spring for holding said bolt normally across the path of said plunger, substantially as set forth.

9. In a chair, the combination of the frame and the pivoted seat having slotted edges, the 85 entire support or brace C for the outer side of said seat being pivoted to said frame at c and having studs engaging in said slotted side edges of the seat, and a locking mechanism secured to said frame and connected to 90 said seat, said braces C being adapted to fold up with the seat independently of the chair-frame, substantially as set forth.

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