(No Model.) 2 Sheets—Sheet 1.

C. S. PATTERSON.

COIN LOCKED BOX.

No. 442,686. Patented Dec. 16, 1890.

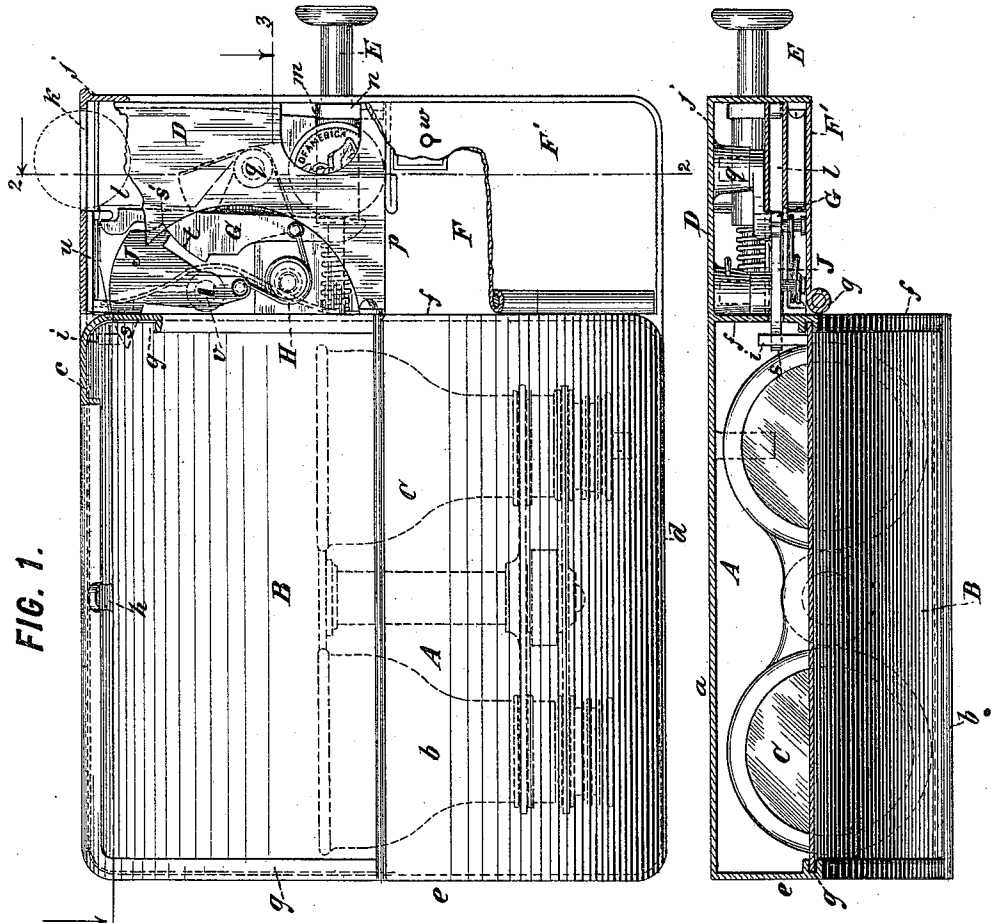


FIG. 1.

FIG. 3.

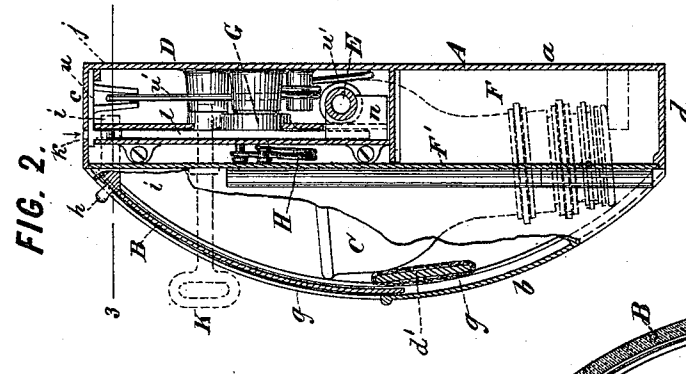


FIG. 2.

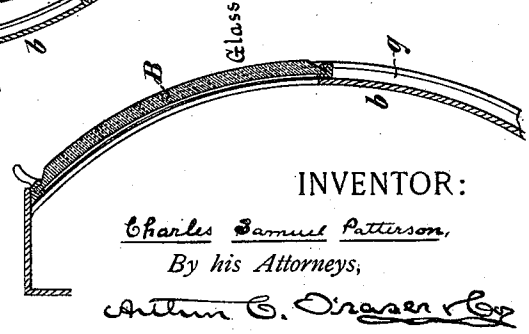


FIG. 10.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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FIG. 11.

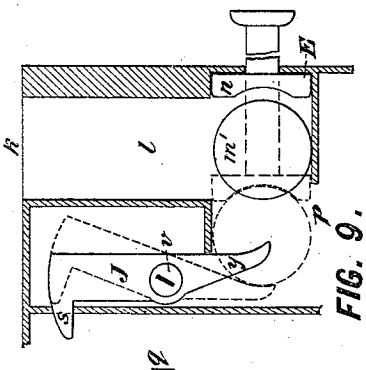


FIG. 9.

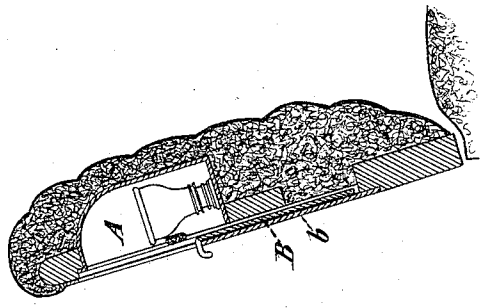


FIG. 7.

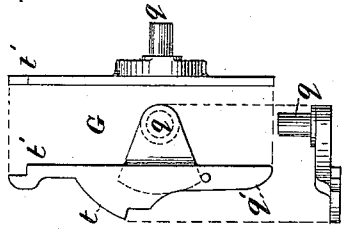


FIG. 6.

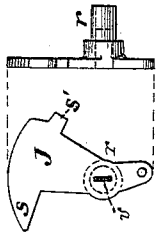


FIG. 8.

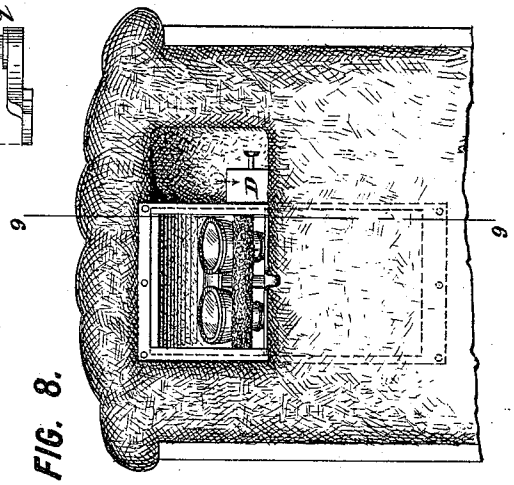


FIG. 4.

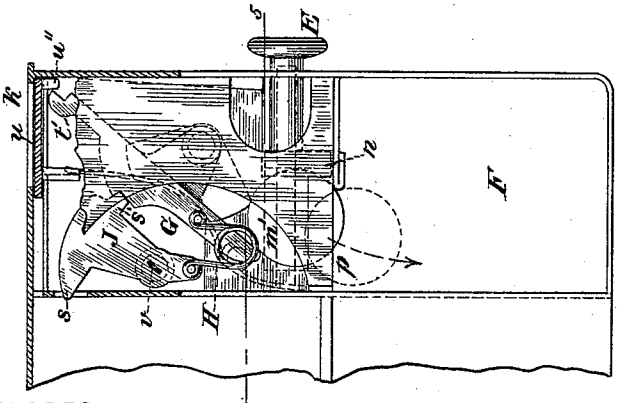
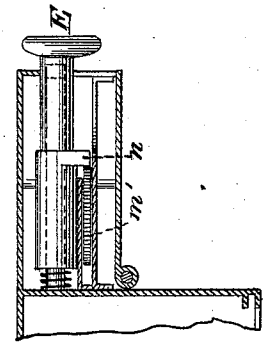


FIG. 5.



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UNITED STATES PATENT OFFICE.

CHARLES SAMUEL PATTERSON, OF NEW YORK, N. Y.

COIN-LOCKED BOX.

SPECIFICATION forming part of Letters Patent No. 442,686, dated December 16, 1890.

Application filed April 25, 1889. Serial No. 308,598. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SAMUEL PATTERSON, a subject of the Queen of Great Britain, residing in New York city, in the county and State of New York, have invented certain new and useful Improvements in Coin-Locked Boxes, of which the following is a specification.

This invention relates to boxes or receptacles for containing opera-glasses or other similar things adapted to be fastened or otherwise applied to theater-chairs or in other analogous locations, such boxes being constructed to be unlocked by the insertion of a coin of the prescribed kind.

The object of the invention is to overcome the disadvantages inherent in such boxes as heretofore constructed—namely, that the cover or lid of the box is in the way when the box is open, so that in the case of theater-chair boxes it interferes with the passage of the auditors between the rows of seats, and that the unlocking and springing open of the box is accompanied by some noise, which in theaters is very objectionable.

My invention also provides improved means for manipulating the box with reference to the coin-actuated lock.

Figure 1 of the accompanying drawings is a front elevation of my improved box, the upper right-hand portion of which is partly broken away to show the construction of the coin-actuated lock. Fig. 2 is a vertical transverse section thereof cut approximately in the plane of the line 2 2 in Fig. 1. Fig. 3 is a plan view and horizontal section in the plane of the line 3 3 in Figs. 1 and 2. Fig. 4 is a fragmentary front elevation broken away in vertical section in similar manner to Fig. 1 and showing the lock unlocked. Fig. 5 is a fragmentary horizontal section on the line 5 5 in Fig. 4. Figs. 6 and 7 are detail views showing, respectively, the bolt and tumbler removed. Fig. 8 is a rear elevation of a theater-chair, showing a modified method of applying my invention. Fig. 9 is a vertical transverse section on the line 9 9 in Fig. 8. Fig. 10 is a fragmentary section answering to Fig. 2 and showing a modification. Fig. 11 is a fragmentary sectional view answering to Fig. 4 and showing a modification.

I will describe first the construction shown in Figs. 1 to 7, inclusive.

The box A is constructed with preferably a flat back plate *a* and a curved front plate *b*, formed as a segment of a cylinder, with top and bottom plates *c* and *d*, respectively, and end plates *e* and *f*. In the front of the end plates *e* and *f* are formed grooves or slideways *g g*, Fig. 3, in which slides the lid or cover B, the edges of which enter these grooves. This cover is arc-shaped, with a similar curve to that of the plate *b*. The latter plate extends approximately half-way up from the bottom of the box, forming an opening above it large enough to permit the opera-glass C, contained in the box, to be passed out or in through it. The cover B when raised closes this opening, and when dropped it slides down inside of the front plate *b*. The opera-glass is supported by a bar *d'*, Fig. 2, within the box, or in some other suitable manner. The upper part of the lid B is formed with a handle *h*, by which to lift it in order to relock the box. It is also formed at its right-hand side with a hasp or projection *i*, as shown in Figs. 2 and 3. This hasp is formed with a hole or notch, which is entered by the nose *s* of the locking-bolt J of the coin-actuated lock.

The coin-actuated lock as a whole is designated by the letter D. It consists of a casing *j*, formed, preferably, as a wing or extension of the box A, and provided with a coin-slot *k* at its top, through which to insert a coin, as indicated by dotted lines in Fig. 1. Extending downward from this coin-slot is a coin-conduit *l*. (Shown best in Fig. 2.) The coin falls down through this conduit to the position shown at *m* in Fig. 1. When in this position, it stands against the shoulder *n* of a pusher or plunger E, which extends out through the right-hand side wall of the case and terminates in a push-button. On pressing in this button the coin is pushed by the shoulder *n* to or beyond the position shown at *m'* in Figs. 4 and 5, so that it falls through the opening *p* into the coin-receptacle F underneath the lock. During this movement the coin strikes the lower end of a tilting tumbler G. (Shown detached in Fig. 7.) This tumbler turns on a pivot *q*, which has bearings in a boss formed on the back plate. It

is pressed against by a spring H, which holds it normally in the position shown in Fig. 1. The elongated portion of this tumbler projects into the coin conduit *l*, so that its bottom portion or tail *q'* in Fig. 7 stands in the path of the coin. The pushing of the coin against it thus tilts the tumbler to the position shown in Fig. 4. The locking-bolt J (shown detached in Fig. 6) is pivoted by a stud *r*, which turns in a boss on the back plate, and is pressed against by the spring H (or by a separate spring, if preferred) in such direction as to tend to retract its nose *s* from engagement with the hasp *i*. In the normal or locked position of the parts (shown in Fig. 1) this retraction of the bolt is prevented by its heel *s'* coming in contact with the concentric face *t* on the tumbler. Hence the lock cannot be unlocked until the tumbler G is tilted to the position shown in Fig. 4, which brings its concentric face *t* to a position beyond the heel *s'*, so that the latter is no longer supported thereby, and the bolt springs back, as shown in Fig. 4. The lock is thus unlocked and the cover B, being no longer supported, drops down and opens the box. The tumbler G is provided with an arm *t'*, extending upwardly, as shown in Fig. 7, the upper end of which engages a slide *u*. (Shown best in Figs. 2 and 4.) The tilting movement of the tumbler carries this slide to a position underneath the coin-slot *k*, as shown in Fig. 4, so that it closes the coin-slot and prevents the insertion of another coin. This movement of the slide is effected in opposition to the tension of a spring *u'*. (Shown in full lines in Fig. 2 and in dotted lines in Figs. 1 and 4.) The upper end of the arm *t'* acts against a downwardly-projecting lug *u''* on the slide *u*, this construction being adopted in order that if a person by reaching through the coin-slot with a knife-blade or other utensil should move this slide to the right this movement would not displace the tumbler and effect the unlocking of the box.

The box having been unlocked, the parts of the lock remain in the positions shown in Fig. 4 until the box is relocked. This is done by the attendant in the theater after the performance. The attendant, after examining the box to see that the opera-glass has been properly restored to place, will lift the cover B to its normal position with one hand and with the other hand will insert a key K (shown in dotted lines in Fig. 2) through a suitable key-hole in the front of the locked case and into the slot *v* in the bolt J, and by twisting the key he will turn the bolt until its nose *s* enters and locks the hasp and until its heel *s'* is moved far enough away from the tumbler to release the latter, whereupon the tumbler will spring back to its normal position, as shown in Fig. 1. The slide *u* will simultaneously spring back under the tension of its spring *u'*. The lock is now ready to be operated again.

The coins which accumulate in the box F will be removed at suitable intervals by opening the door F', which is normally locked by a key-actuated lock. (Indicated at *w* in Fig. 1.)

My improved opera-glass box has the important practical advantages of occupying but little room, so that it may be attached to the back of a theater-chair without being in the way of the person sitting in the chair behind, and that it occupies no more room when open than when closed, so that it in no way obstructs the passage of auditors between the rows of chairs to and from their seats, that no spring is required to throw the lid or cover open when it is unlocked, and its opening movement, being a mere sliding movement in guides, is unaccompanied by any shock or noise, such as results from the springing open of a hinged lid. It further has the advantage that the box presents a distinctly different appearance when open from that presented when it is closed, so that the employés of a theater can see at a glance as the audience is leaving what boxes have been opened and can easily distinguish without making a close examination of each box whether the glass has been properly returned thereto by the auditor, which constitutes an important safeguard against the purloining of the glasses. The arrangement of the coin-actuated lock is such that it does not add to the vertical space occupied by the box and takes no room that would be otherwise available. The operation of the lock is positive and does not depend upon the weight of the coin or its momentum in falling, and the lock consists of but few parts and is of simple construction. The closing and relocking of the box by any one other than the attendant is rendered practically impossible, so that a person who is disposed to purloin the glasses cannot secure himself against detection. Any attempt to close the cover B will result, simply, in its dropping back to place.

I contemplate making the cover or lid B of glass, as shown in Fig. 10, in order that the interior of the box may be seen when the box is closed, thereby affording a further safeguard against the carrying away of the glasses, and also serving as an inducement to auditors to use the box. The glass door is preferably constructed with a metal frame and a curved pane of bevel-edged plate-glass, as clearly shown. With this construction or with that first described the cover B may be constructed to slide down either inside the box-front *b*, as shown in Fig. 2, or outside thereof, as shown in Fig. 10, the latter being preferable in case a thick material is used for the cover.

In the case of theater-chairs which are made with thickly-cushioned backs I propose to construct my improved opera-glass box to be built into the back of the chair, as shown in Figs. 8 and 9. In this case the front of the box and the sliding lid or cover will be straight instead of curved. The body of the box may be made of flexible material, so as not to im-

pair the elasticity of the upholstered cushion. A recess is formed in the chair-back, extending to one side of the box, as indicated at L in Fig. 8, to admit the hand of the person in order to drop a coin into the coin-actuated lock D and to operate the push-button thereof. The construction in other respects does not differ materially from that of the box first described, and will be obvious from the figures.

I make no claim to a box or receptacle for opera-glasses adapted for attachment to theater-chairs and locked by means of a coin-actuated lock, as I am not the first inventor of such a device, broadly speaking, which is claimed, broadly, in the application of James William Patterson, Serial No. 303,465, filed March 15, 1889. I hereby disclaim whatever is claimed in that application. I am also aware that coin-actuated locks of various kinds are known in the art, and I make no claim to such, broadly; nor is my invention in its broader features limited to the application of any particular construction of such coin-actuated locks.

It will be understood that my invention may be modified in various respects without departing from its essential features. For example, in the construction of the coin-actuated lock the tumbler G may be omitted and the coin be made to act directly against the bolt J. Such a construction is shown in Fig. 11, wherein the bolt J is formed with a tail *y*, projecting into the path that must be traversed by the coin before it can fall through the opening *p*, so that when the plunger E is pressed in and the coin thereby forced to the position shown in dotted lines the bolt will be tilted from the position shown in full lines to that shown in dotted lines. In this case the bolt will be made without any springs and will turn with sufficient friction to cause it to remain in one position until forcibly moved to another. In relocking the box the bolt will be turned back by the insertion of a key, as already described.

I claim as my invention the following-defined novel features and combinations, substantially as hereinbefore specified, namely:

1. The combination of a box for containing opera-glasses, &c., constructed with an opening in its front side and with parallel guides or slideways, and a sliding cover for closing said opening, movable in said guides to a position below said opening, with a coin-actuated lock for fastening said cover in its upper position to close said opening, whereby on the insertion of a coin said cover is released and drops down and exposes the interior of the box.

2. The combination of a box for containing opera-glasses, &c., constructed with an opening in the upper part of its front side extending approximately half-way down and formed with parallel guides or slideways, and a sliding cover for closing said opening, movable in said guides from an upper position coincident with and closing said opening to a lower position coincident with the closed front portion of the box, with a coin-actuated lock for fastening said cover in its upper position to close said opening.

3. The combination of a box for containing opera-glasses, &c., constructed with an opening in its front side and with guides or slideways, and a sliding cover for closing said openings, movable in said guides to a position below said opening, with a coin-actuated lock for fastening said cover in its upper position to close said opening, consisting of a bolt movable to unfasten the cover through the action of an inserted coin and movable to fasten said cover only through the action of a special key, whereby a person unprovided with such key cannot fasten the cover in its closed position, so that the box when once opened must remain open until closed by the use of such key.

4. The combination of a box for containing opera-glasses, &c., constructed with an opening in its front side and with guides or slideways, and a sliding cover for closing said opening, movable in said guides to a position below said opening, with a coin-actuated lock for fastening said cover in its upper position to close said opening, consisting of a casing formed with a coin-conduit, a movable bolt normally engaging said cover, and a movable part or plunger constructed to be displaced manually from the exterior of the casing and when displaced to propel an inserted coin and through the intervention of the latter to communicate its movement to actuate said bolt and withdraw it from engagement with said cover, and said casing constructed with a key-hole for the insertion of a special key to restore said bolt to its locked position.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES SAMUEL PATTERSON.

Witnesses:
ARTHUR C. FRASER,
GEORGE H. FRASER.