No. 610,578. Patented Sept. 13, 1898.

F. X. BODNAR & S. L. KREPPEL.

COIN OPERATED LOCK MECHANISM.

(Application filed Feb. 20, 1897.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

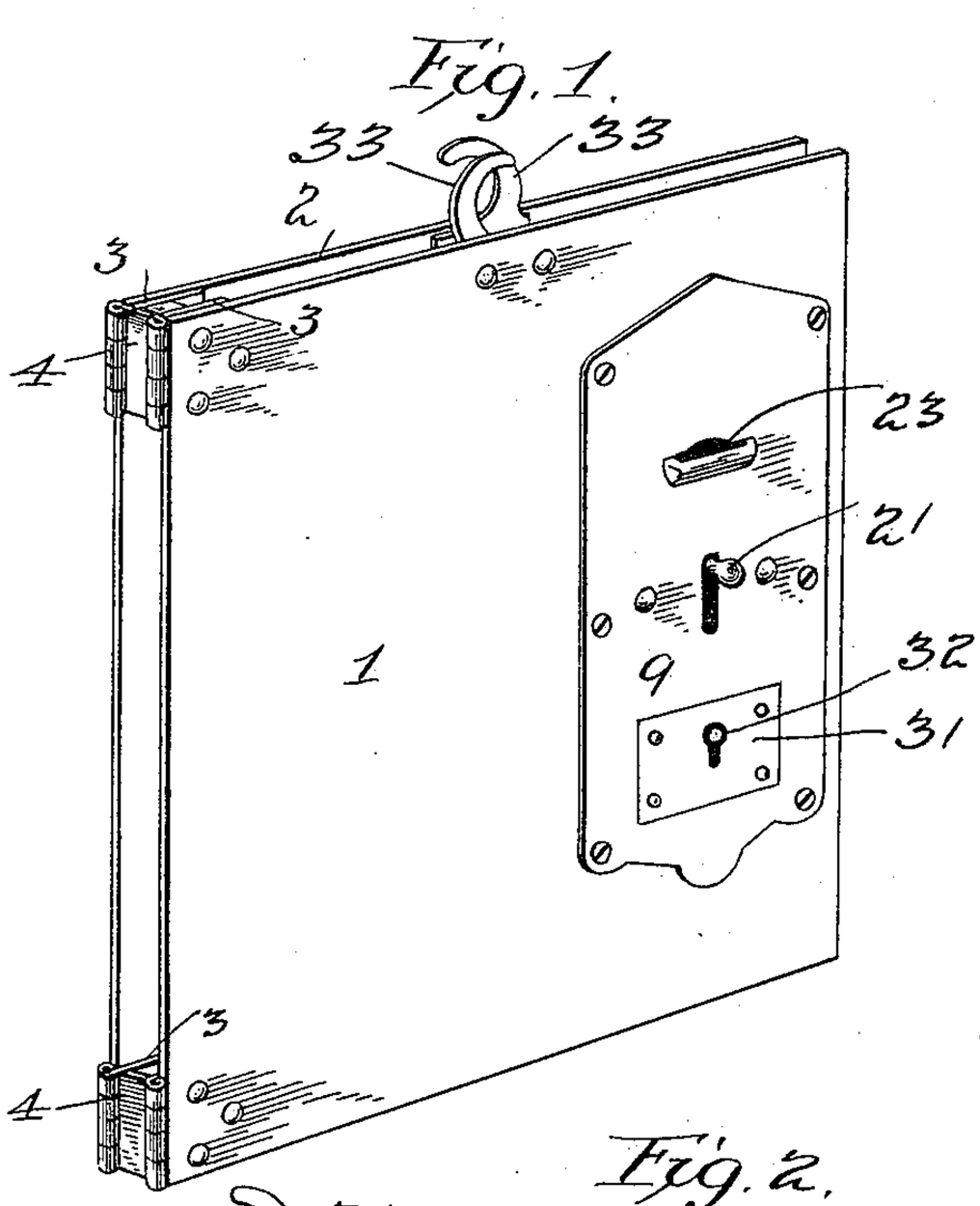
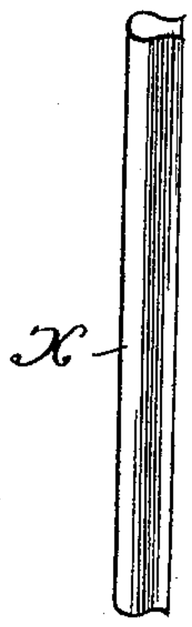


Fig. 7.



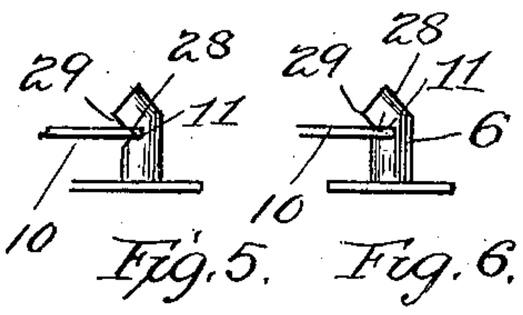
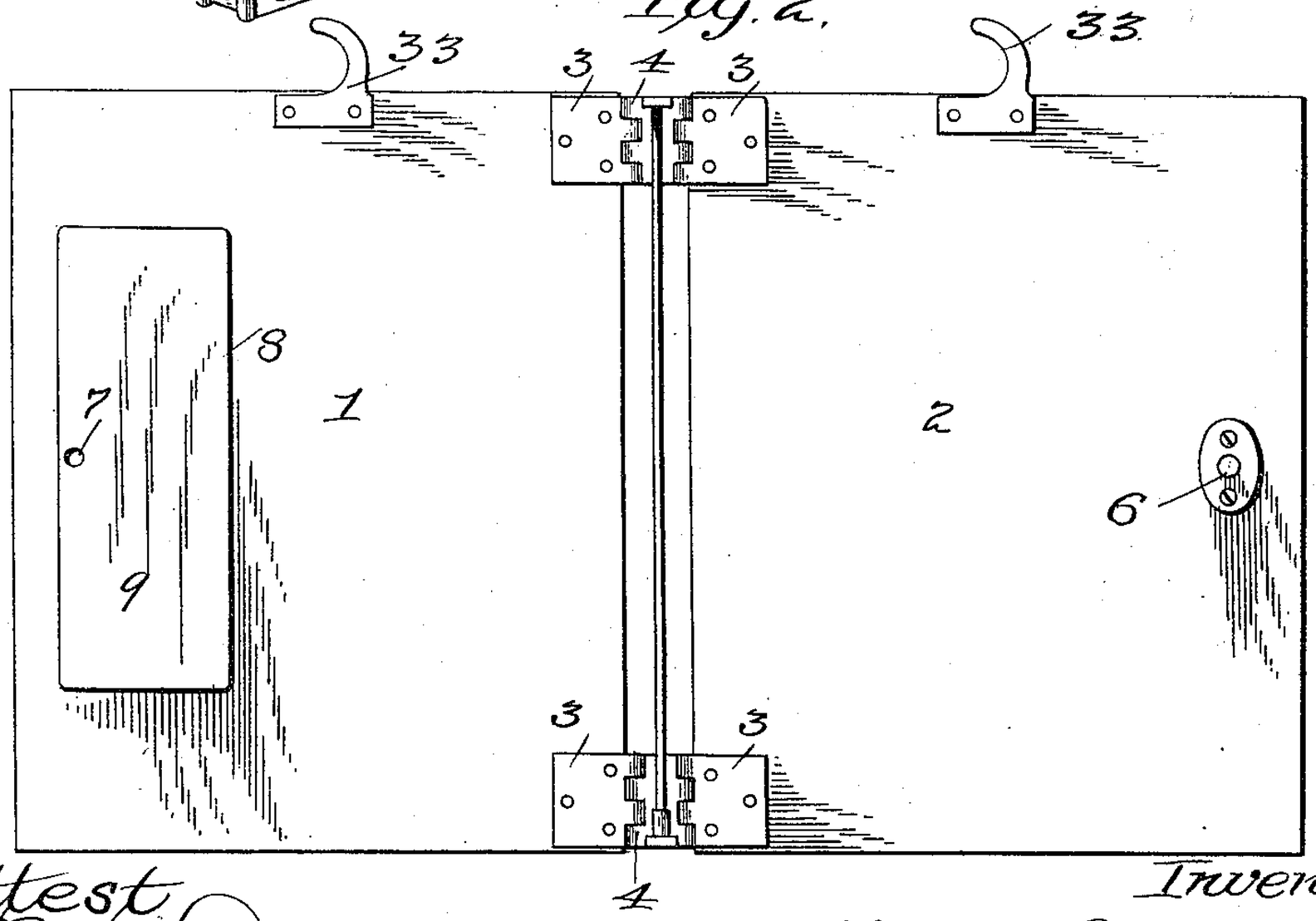


Fig. 5. Fig. 6.

Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

Fig. 3.

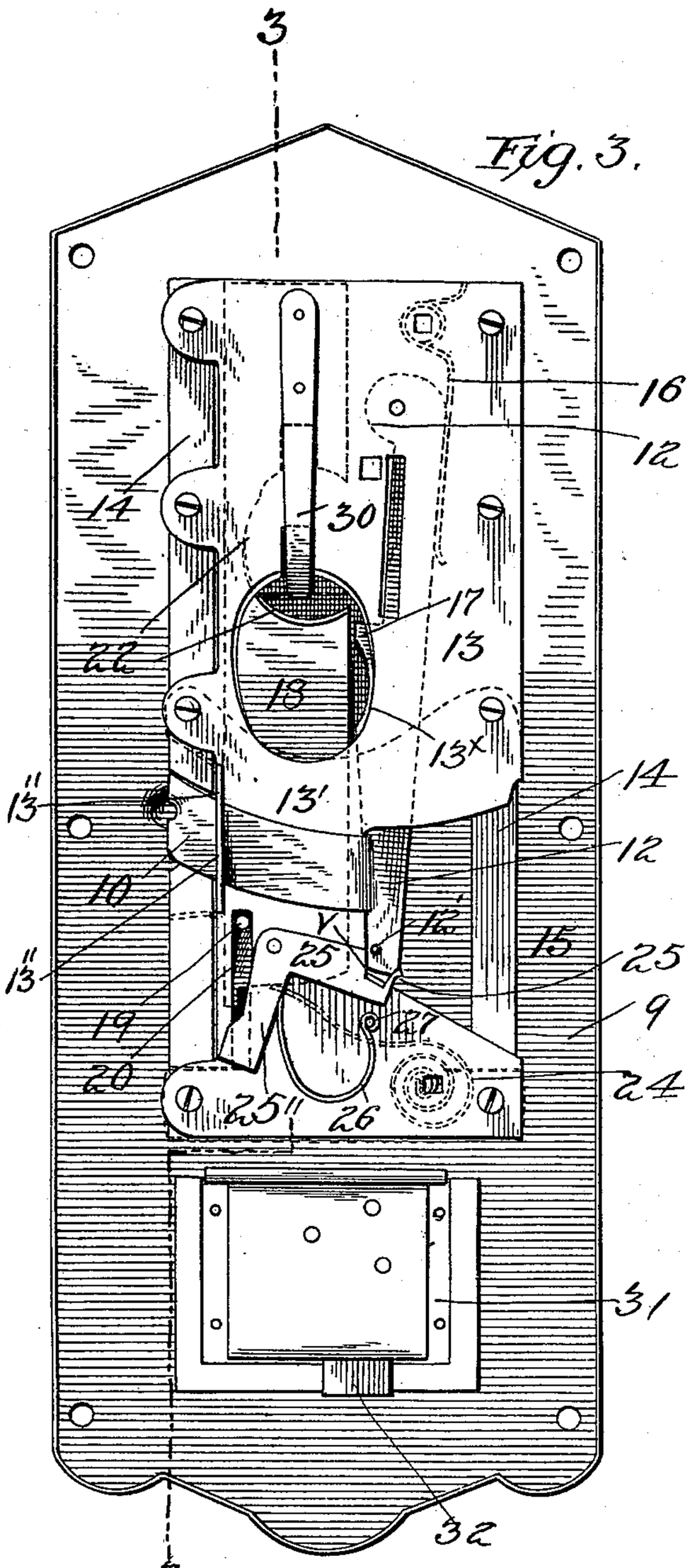
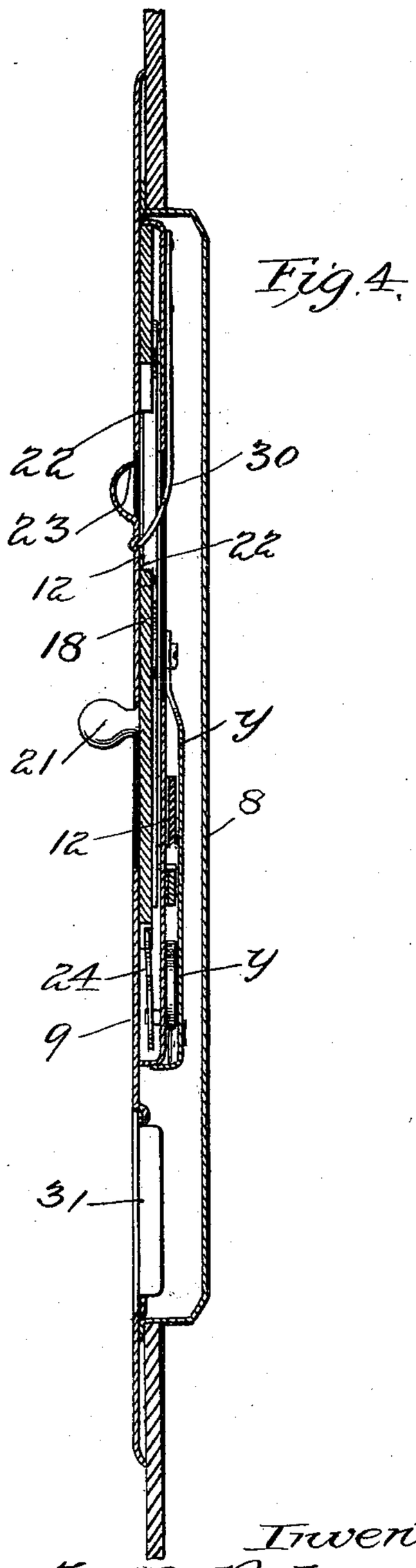


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANZ XAVER BODNAR AND SAMUEL LEIB KREPPEL, OF VIENNA, AUSTRIA-HUNGARY.

COIN-OPERATED LOCK MECHANISM.

SPECIFICATION forming part of Letters Patent No. 610,578, dated September 13, 1898.

Application filed February 20, 1897. Serial No. 624,464. (No model.) Patented in England August 22, 1896, No. 17,453; in Switzerland September 28, 1896, No. 13,253; in France November 18, 1896, No. 258,540; in Germany April 21, 1897, No. 92,906, and in Austria May 20, 1897, No. 47/1,809.

To all whom it may concern:

Be it known that we, FRANZ XAVER BODNAR and SAMUEL LEIB KREPPEL, citizens of Austria-Hungary, and residents of Vienna, Austria-Hungary, have invented certain new and useful Coin-Operated Lock Mechanism, of which the following is a specification.

Patents have been granted for this invention in Austria, No. 47/1,809, dated May 20, 1897; in Germany, No. 92,906, dated April 21, 1897; in France, No. 258,540, dated November 18, 1896; in England, No. 17,453, dated August 22, 1896, and in Switzerland, definitive, No. 13,253, dated September 28, 1896.

Our invention is a coin-controlled portfolio adapted for the reception of papers and documents, and it is capable of variation as to form to suit different requirements as to shape and size necessitated by the different kinds of papers or documents to be contained.

Our invention is particularly adapted for use in connection with newspapers or periodicals which may be inclosed therein from inspection and use until the required coin is introduced into the device to release the locking mechanism.

In the drawings, Figure 1 is a perspective view of the portfolio or binder. Fig. 2 is a view of the portfolio open. Fig. 3 is a view of the lock with part of the casing removed. Fig. 4 is a sectional view on line 3 3 of Fig. 3. Figs. 5 and 6 show details of the locking-bolt and catch-hook. Fig. 7 is a detail view of a paper-clamp.

The portfolio or temporary binder consists of two leaves or sides 1 2, hinged together at top and bottom. The hinges comprise the sections 3, secured to the sides, and the connecting-pieces 4, hinged to the said sections by hinge-joints, thus forming a double hinge connection which will keep the sides at the back a fixed distance apart and will insure the alinement of the locking devices hereinafter described. The connecting-pieces 4 support the clips which hold the rod by which the papers or documents are held.

The locking mechanism is placed between the leaves or sides at or near their free edges, and this mechanism comprises a catch 6 on one leaf projecting at right angles to the face of the leaf and adapted to pass through an opening 7 in the side 8 of the lock-casing 9, which casing is fixed by screws or otherwise in an opening in the opposite leaf. A locking-bolt 10 engages with its end the notch 11 of this catch, and thus locks the leaves together. The bolt is carried by an arm 12, pivoted to a plate 13, which is screwed to the frame-bars 14 of the face-plate 15 of the lock-casing, so that the arm moves between this face-plate 15 and the plate 13. A spring 16, also between the plates, presses the arm constantly in a direction to normally engage the locking-catch. The bolt is bent up from the lever-arm, so as to overlie the reduced part 13′ of the plate 13 and to pass through the upright guide 13″ thereon. The lever-arm has a stud or projection 17 on one side adjacent to the edge of the cam-slide 18, which is located between the plates 15 and 13 and is guided by a pin 19 thereon, working in a slot 20 of the plate 13, and by the handle or knob 21, passing from the slide through a slot in the face-plate of the lock-casing. The coin-slide has an opening 22 to receive the coin of proper size from the coin-slot 23 in the face-plate 15, and the slide is pressed normally up by a spring 24, carried on the inner side of the plate 13 and engaging the slide, so that its opening is normally in position to receive the coin from the coin-slot. A spring 30 is secured to the face of the plate 13, and the end of this is bent to lie in the line of movement of the coin. The opening in the coin-slide extends to the edge of the slide, and the coin when in the opening projects slightly therefrom, and when the slide is moved the edge of the coin bears directly on the projection 17 of the bolt-lever 12. This action forces the lever-arm backward and retracts the bolt sufficiently to unlock the portfolio. The lever-arm 12 has a pin 12′ thereon, and this is engaged by a retaining-lever 25, which has a forked end 25′ to engage the pin when the lever-arm 12 is retracted. The retaining-lever is set in position to engage the pin 12′ immediately after the lever-arm is retracted, and for

this purpose the retaining-lever is of right-angular form and is pivoted at its elbow to the face of the plate 13, its arm 25″ having a cam edge which extends across the slot 20 before mentioned and into the path of the pin 19 on the coin-slide, being normally pressed into this position by the leaf-spring 26, bearing on the arm 25″, and having its other end secured to the plate 13 by the pin 27.

In the movement of the coin-slide with the coin in place the lever-arm of the bolt is first retracted through the direct action of the coin, and then the pin 19 strikes the cam edge of the right-angular retaining-lever and moves said retaining-lever against the pressure of its spring, so that its hook 25′ will be directly in front of the pin 12′ just at this time, and while the retaining-lever is so held the coin in the continuous movement of the slide releases the projection of the lever-arm and allows the lever-arm to have a very slight movement under the action of its spring, so that the pin 12′ will firmly engage the hook of the pivoted retaining-lever. The operating-knob of the coin-slide now being released by the operator, said slide will return at once to its former position, while the locking-bolt will remain retracted by the pivoted catch-lever. The bolt is not retracted far enough by the coin to get entirely out of alinement with the catch-hook 6 on the other leaf or side of the portfolio; but it is simply retracted far enough to destroy the locking action of bolt. The bolt and catch may still have contact with each other; but this contact is a sliding one and is intended merely to give in the final separation of the catch-hook from the locking-bolt a slight retracting movement to the latter sufficient to release the pin 12′ from the pivoted retaining-lever and allow the locking-bolt to be set free to engage the catch-hook when the portfolio is closed.

It will be seen from Figs. 5 and 6 that the catch-hook has a flat surface 28 for engaging the locking-bolt to secure the full locking effect and a rounded or inclined bearing-surface 29 to engage the inclined end of the locking-bolt.

When the parts are locked, the bolt engages the flat part of the catch-hook, and when the bolt is retracted by the coin its inclined end is brought into alinement with the incline on the catch-hook, and in the final opening movement of the catch-hook or separation of the same from the locking-bolt this incline, acting against the inclined edge of the locking-bolt, will retract the latter sufficiently to release the bolt from the retaining-lever 25, and immediately the catch-hook leaves the bolt the latter resets itself for another locking action, as do also all the other parts.

The coin when introduced through the coin-slot must be forced by the operator under the bent end of the spring 30, and this spring by bearing upon the face of the coin steadies it in its movement. This spring will also prevent the withdrawal of the coin when once it has been used to operate the device.

The casing 13 has an opening 13× through which the coin may fall into the bottom of the casing, from where it may be removed through the door 31 when the same is unlocked by operating the lock 32, carried on the door.

The casing-plates and operating parts may be stamped up into shape.

In order to hang up the portfolio, each leaf or side has attached to its upper edge a hook 33, facing in opposite directions, so that when the leaves are closed these hooks, overlapping each other, will form a suspending-ring.

It will be noticed that in our invention the weight of the coin plays no part at all, but that the parts are operated entirely by direct contact of the coin transmitting the force applied by the operator to the cam-slide.

Our invention is not limited in its application to portfolios, but may be used on drawers and in like situations, and the mechanism may be used in any position—vertical, horizontal, or, in fact, upside down.

If the cam-slide is operated without the presence of a coin therein, the locking-bolt will not be retracted. The retainer will be operated; but this will have no effect, as the pin 12′ will simply be received in the notch V of the retaining-lever, and the retaining-lever will again assume normal position as soon as the coin-slide is released. This action of the retaining-lever with its notch V will for the time being effectually lock the bolt against retraction, and thus the device cannot be successfully tampered with.

The newspapers may be held in place on the rod before mentioned by a tubular clamp X.

A plate *y* is used to cover the retaining-lever, its spring, and the bolt.

What we claim is—

1. A coin-operated lock mechanism comprising a swinging bolt, a lock-hook adapted to be engaged thereby, a movable coin-carrier having a recess to receive the coin, a projection on the bolt adapted to be engaged by the coin and be moved thereby to unlock the bolt, and means for holding the swinging bolt in its retracted position, substantially as described.

2. A coin-operated lock mechanism comprising a spring-pressed bolt, a lock-hook adapted to be engaged thereby, a movable coin-carrier having a recess to receive the coin, said spring-pressed bolt having a portion extending into the path of the coin whereby the movement of the coin and coin-slide will move the bolt, and a retaining-lever adapted to be operated by the coin-carrier to engage the bolt and hold it retracted, the said locking-hook in its final opening movement acting to release the retaining device from the locking-bolt substantially as described.

3. A coin-operated lock mechanism comprising the spring-pressed swinging bolt, the lock-hook adapted to be engaged thereby, the

reciprocating coin-carrier having a recess to receive the coin, said swinging bolt having a portion extending into the path of the coin, and the spring-pressed oscillating retaining-lever having one end adapted to be operated by the coin-carrier and the other end adapted when so operated to engage the swinging bolt, substantially as described.

4. In combination the spring-pressed locking-bolt, the lock-hook, the movable coin-carrier adapted to receive a coin and carry it into contact with said locking-bolt to move the same, a projection carried by the locking-bolt, and a retaining-lever operated by the movement of the coin-carrier to hold the locking-bolt in its moved position, said retaining-lever having a notch adapted to engage the projection and hold the bolt against movement when no coin or an improper coin has been placed in the carrier, substantially as described.

5. In combination the swinging bolt under spring tension, the lock-hook, the reciprocating coin-carrier having a recess for the coin, the projection from the bolt extending into the path of the coin, the spring-pressed two-armed retaining-lever having one arm adapted to be moved by the coin-slide, the other arm of said lever having its end adapted to abut against a projection on the swinging bolt to hold it unlocked when the proper coin has been placed in the carrier, and having a V-shaped notch adapted to embrace said projection to hold the swinging bolt against movement when the carrier is improperly operated, substantially as described.

6. In combination with a movable receptacle, a lock mechanism comprising the reciprocating coin-carrier having slots, a spring-arm 30, a swinging arm carrying the bolt, the projection on the said swinging arm, the retaining-lever and the pin on the swinging arm to be engaged thereby, said retaining-lever having a notch to receive the pin in one position of the parts, substantially as described.

7. In combination with a portfolio, a casing carried by one cover, a locking-hook carried by the other and adapted to penetrate the casing, a spring-pressed locking-bolt adapted to engage the hook, a reciprocating coin-carrier having a recess for a coin, said locking-hook having a portion extending into the path of the coin, and a spring adapted to bear against the coin to hold it in the recess and acting also to drop behind the coin on the movement of the carrier to prevent its extraction, substantially as described.

Signed at Vienna, Austria-Hungary, this 25th day of January, A. D. 1897.

FRANZ XAVER BODNAR.
SAMUEL LEIB KREPPEL.

Witnesses:
HARRY BELMONT,
LEOPOLD WAPEROGLY.