

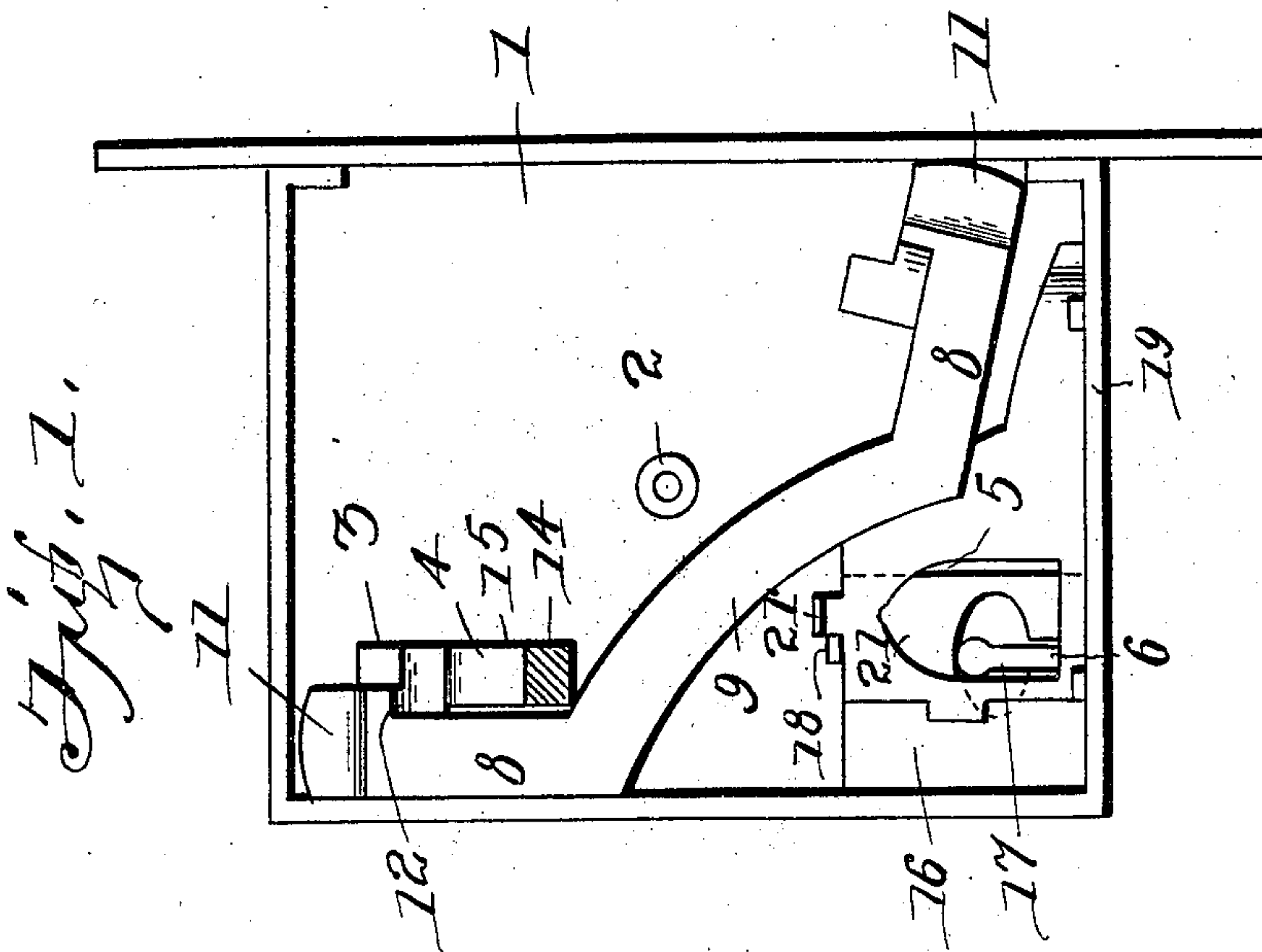
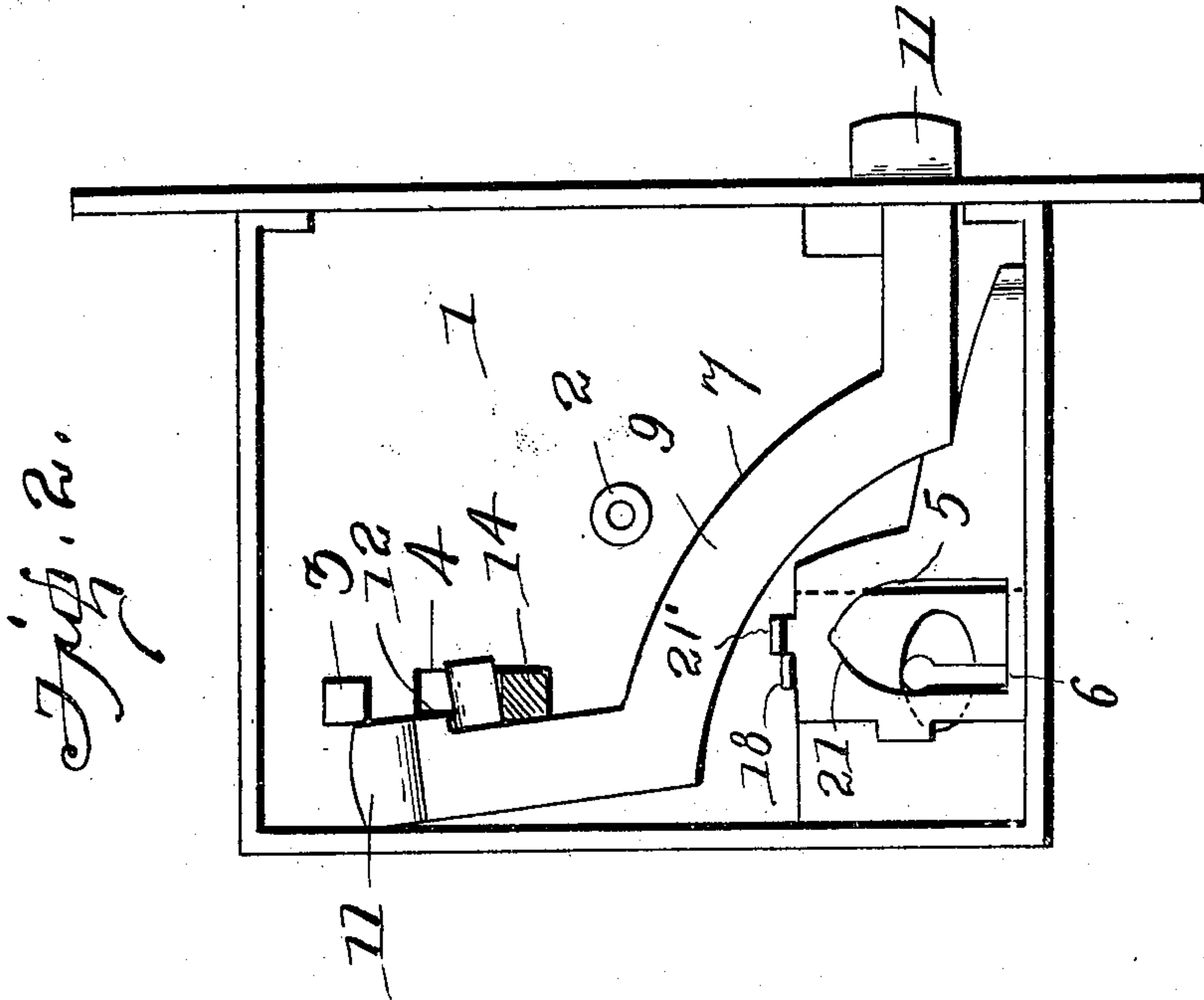
No. 841,219.

PATENTED JAN. 15, 1907.

E. A. BALDWIN.  
LOCK MECHANISM.

APPLICATION FILED APR. 19, 1906.

2 SHEETS—SHEET 1.



Witnesses  
Jas. A. Koehl  
C. W. Griesbauer

Inventor  
E. A. Baldwin.

by *H. B. Wilson & Co.*  
Attorneys

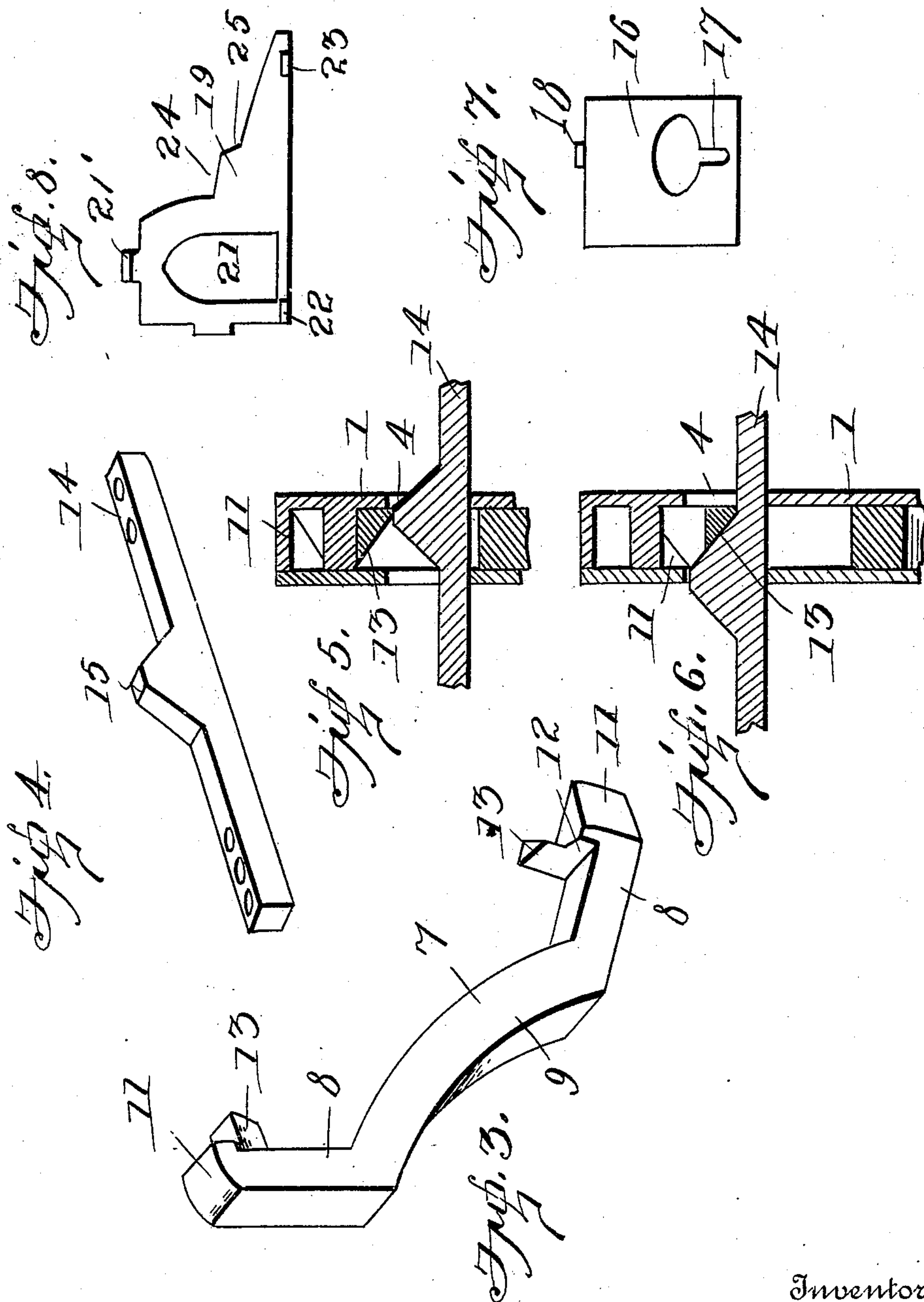
No. 841,219.

PATENTED JAN. 15, 1907.

E. A. BALDWIN.  
LOCK MECHANISM.

APPLICATION FILED APR. 19, 1906.

2 SHEETS—SHEET 2.



Witnesses  
Jas. A. Baehl.  
C. H. Giesbauer.

Inventor  
E. A. Baldwin.  
by *A. B. Wilson & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

ELLORY A. BALDWIN, OF WEST UPTON, MASSACHUSETTS.

## LOCK MECHANISM.

No. 841,219.

Specification of Letters Patent.

Patented Jan. 15, 1907.

Application filed April 19, 1906. Serial No. 312,671.

*To all whom it may concern:*

Be it known that I, ELLORY A. BALDWIN, a citizen of the United States, residing at West Upton, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Lock Mechanism; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to locks; and one of the principal objects of the same is to provide a combined gravity door catch and lock in which springs are entirely omitted and in which the door to which the lock is secured may be opened from either side without turning the knob.

Another object is to provide a lock with a reversible catch to be applied to right and left hand doors and to means whereby this catch is retracted within the lock by pushing upon the knob, provided the door is hinged to swing outward, and to retract the catch when the knob is pulled in opening the door inward.

Another object of the invention is to provide a lock of this character which can be locked either in a position to hold the door closed or to permit its opening and closing without latching.

My lock is particularly designed for use on interior doors that are used continuously, like "fly-doors," which do not require to be latched each time they are used, but which under certain conditions require to be locked.

The foregoing objects and advantages are attained by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a latch and lock made in accordance with my invention, the cover of the casing being removed to illustrate the operative parts, said view illustrating the latch-bar retracted within the casing. Fig. 2 is a similar view in which the latch-bar is projected and locked. Fig. 3 is a perspective view of the latch-bar. Fig. 4 is a similar view of the knob-shank. Fig. 5 is a detail view of one position of the knob-shank relatively to the lock-bar. Fig. 6 is a similar view of the parts in a different position. Fig. 7 is a plan view of the tumbler, and Fig. 8 is a similar view of a detent-plate.

Referring to the accompanying drawings for a more particular description of my in-

vention, the numeral 1 designates a casing provided with a central boss 2, a stop-lug 3, a rectangular knob-shank opening 4, an inwardly-projecting stop 5, and a keyhole 6. A latch-bar, represented as a whole at 7, is placed within the casing. Said latch-bar consists of two right-angularly-extending shanks 8, connected by a curved portion 9, and upon the outer ends of the shanks 8 beveled latches 11 are formed. Just in rear of the latches 11 the shanks 8 are beveled, as at 12, and a projecting lug 13 is similarly beveled and extends outward from the side of the shank 8. This latch-bar is thus available for right and left hand doors.

The knob-shank 14 is provided with a V-shaped cam or projection 15, and the knob-shank is passed through the slot in the casing and bears against the inclined lug 12 at the side of the catch. It will thus be seen that if the door is pulled to open inward the catch is retracted within the casing, while if the door opens outward a push upon the knob-shank will also retract the latch within the casing without turning the knob. When the knob is released, the latch will drop and project out of the casing to latch the door.

To lock the latch-bar, I provide a tumbler 16, provided with a key-opening 17 and a laterally-projecting lug 18 at its upper end. This tumbler is mounted to slide against the stop 5. A detent 19 rests upon the tumbler and is provided with a key opening 21 and a laterally-projecting lug 21', which engages the lug 18 upon the tumbler. Two inclined portions 24 25 are formed on the detent to engage the latch-bar in its retracted position and in its extended position, as shown in Figs. 1 and 2. When the key is inserted in the keyhole and moved around, it lifts the tumbler and moves the detent laterally under the latch-bar to lock the same against a shoulder 25.

In unlocking the latch-bar the tumbler is raised and the detent is returned to its original position, the lugs 18-21 upon the tumbler and detent riding past each other to be interlocked at each position of the tumbler and detent.

From the foregoing it will be obvious that my lock and latch may be operated without turning the knob and that the latch-bar may be locked either in a retracted or a projected position and that the lock may be used for right or left hand doors and for doors that open inward or outward.



Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined by the appended claims.

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

10 1. A lock-casing having a bolt-aperture in one edge near the bottom and transverse apertures through the sides of the casing near the top and with a guide-stop adjacent to said transverse apertures, a latch-bar formed with the ends substantially at right angles to each other and connected by a curved portion whereby an intermediate stop-shoulder is formed thereon, said latch-bar having a lateral stud adapted to be guided at one end by said guide-stop and to project through the bolt-aperture at the other end when the bar is in one position, a detent slidable in said casing and provided with spaced shoulders for alternately bearing against the 25 shoulder of said latch-bar when the bar is in its projected and withdrawn positions, a knob-shank slidable through the transverse apertures in said casing and provided with a lug adapted to engage the lateral stud on the 30 latch-bar and withdraw the same when the shank is in one position, means for actuating said detent and means for locking said detent in either of its two positions.

35 2. A lock-casing having a bolt-aperture in one edge near the bottom and transverse

apertures through the sides of the casing near the top and with a guide-stop adjacent to said transverse apertures, a latch-bar formed with the ends substantially at right angles to each other and connected by a curved portion whereby an intermediate stop-shoulder is formed thereon, said latch-bar having a lateral stud adapted to be guided at one end by said guide-stop and to project through the bolt-aperture at the other end when the bar is in one position, a tumbler slidable in said casing and provided with a lateral stop, a detent slidable in said casing transversely of said tumbler and provided with a lateral stop for alternate engagement with the stop of said tumbler, said detent provided with spaced shoulders for alternately bearing against the shoulder of said latch-bar when the bar is in its projected or in its withdrawn position, a knob-shank slidable through the transverse aperture in said casing and provided with a lug adapted to engage the lateral stud on the latch-bar and withdraw the same when the shank is disposed in one position, and means for simultaneously actuating said detent and tumbler to alternately dispose said detent in either of its two positions.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ELLORY A. BALDWIN.

Witnesses:

ALURADO HENRY,  
FLORIAN G. CHURCH.