

No. 848,241.

PATENTED MAR. 26, 1907.

A. C. HAYDEN.
PHOTOGRAPHIC PLATE HOLDER.

APPLICATION FILED JAN. 31, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

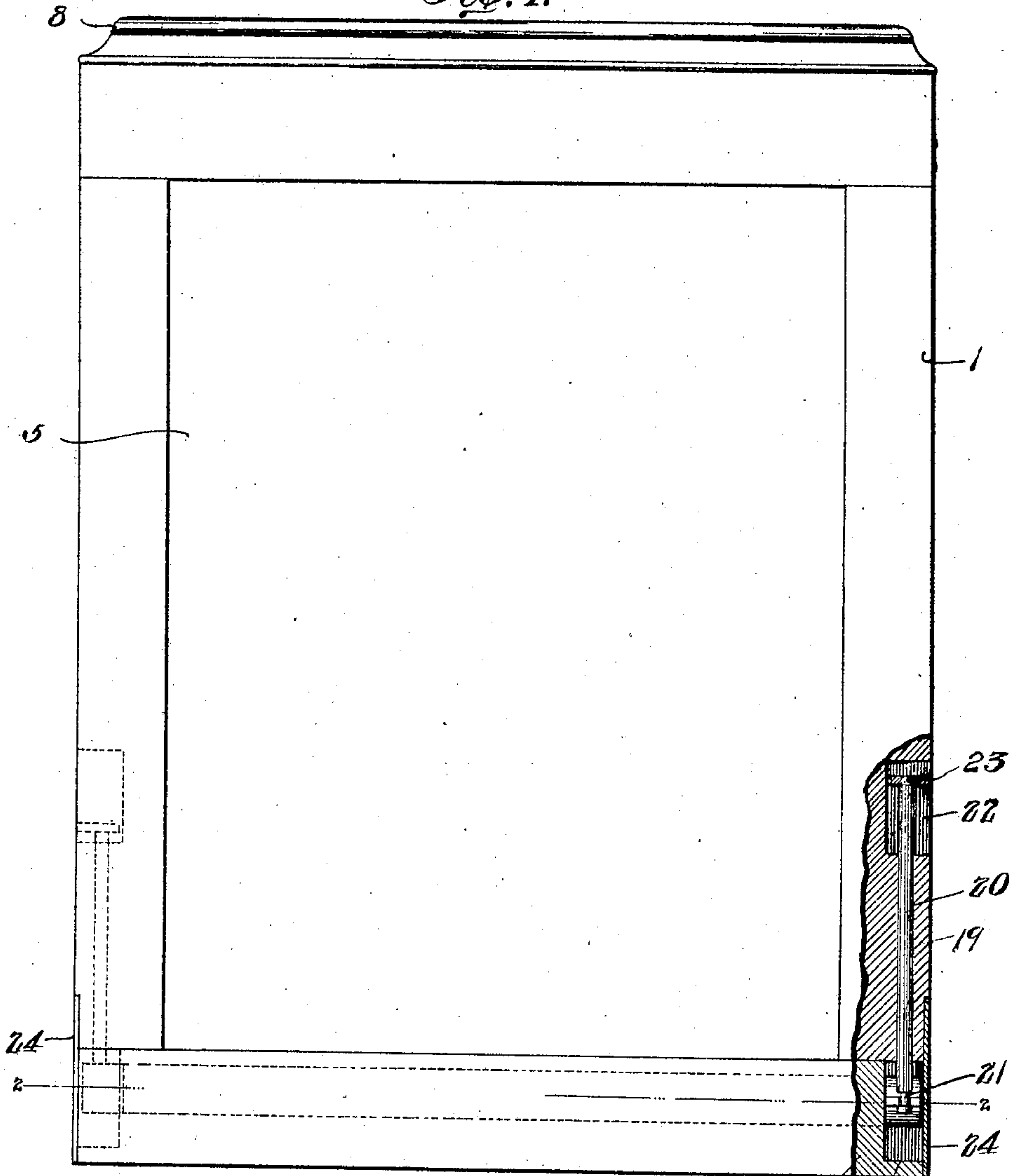
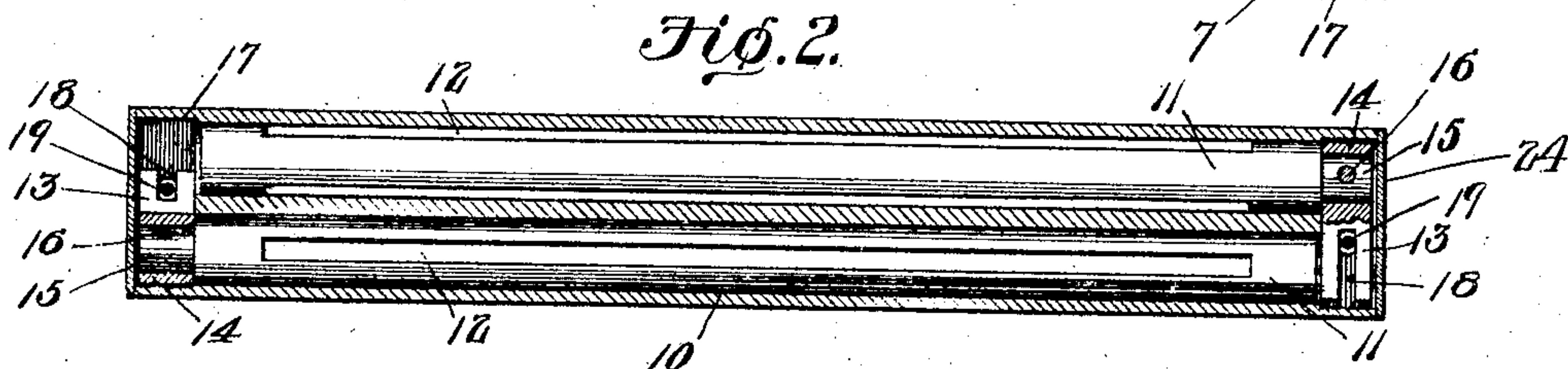


Fig. 2.



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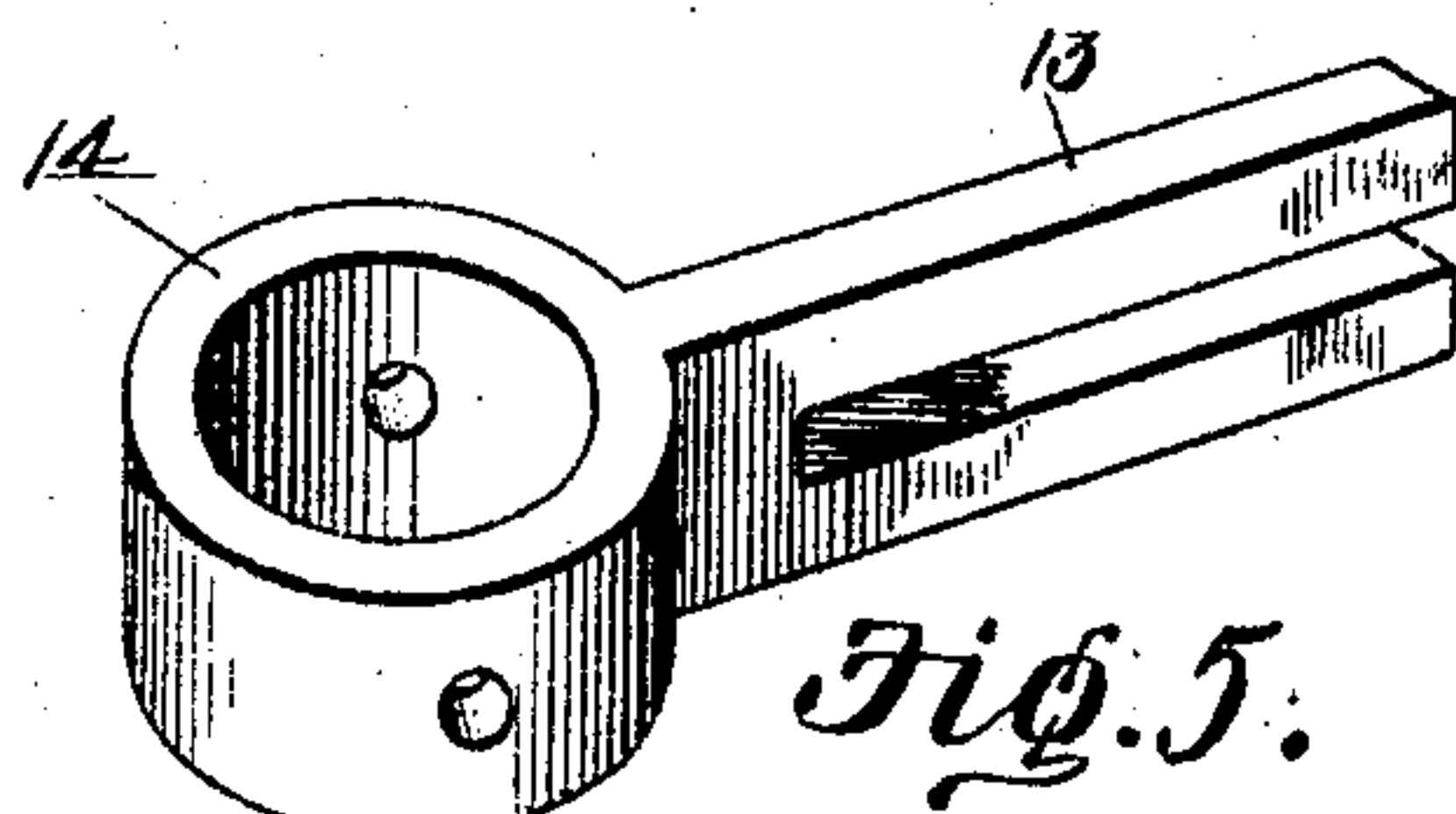
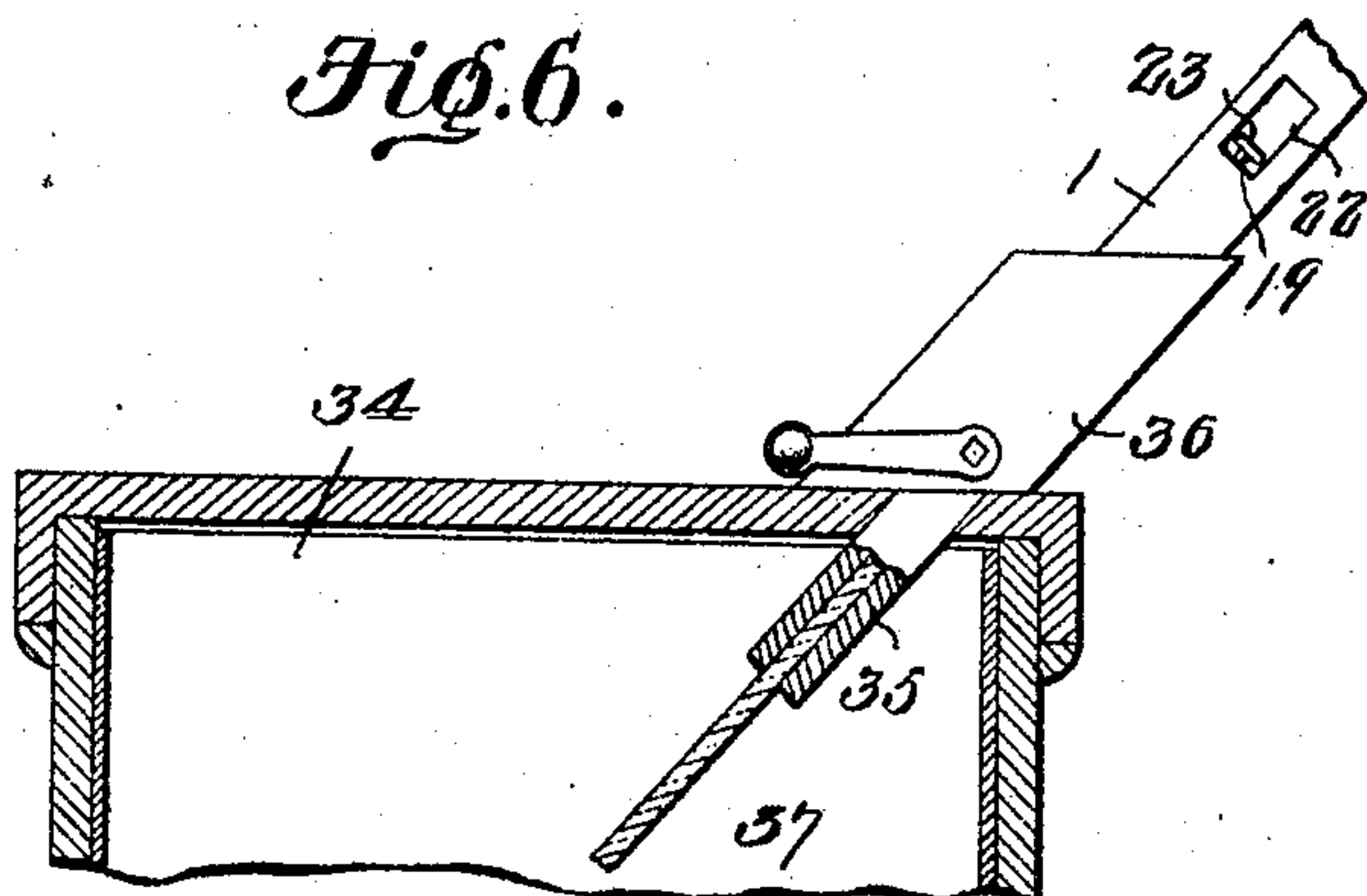
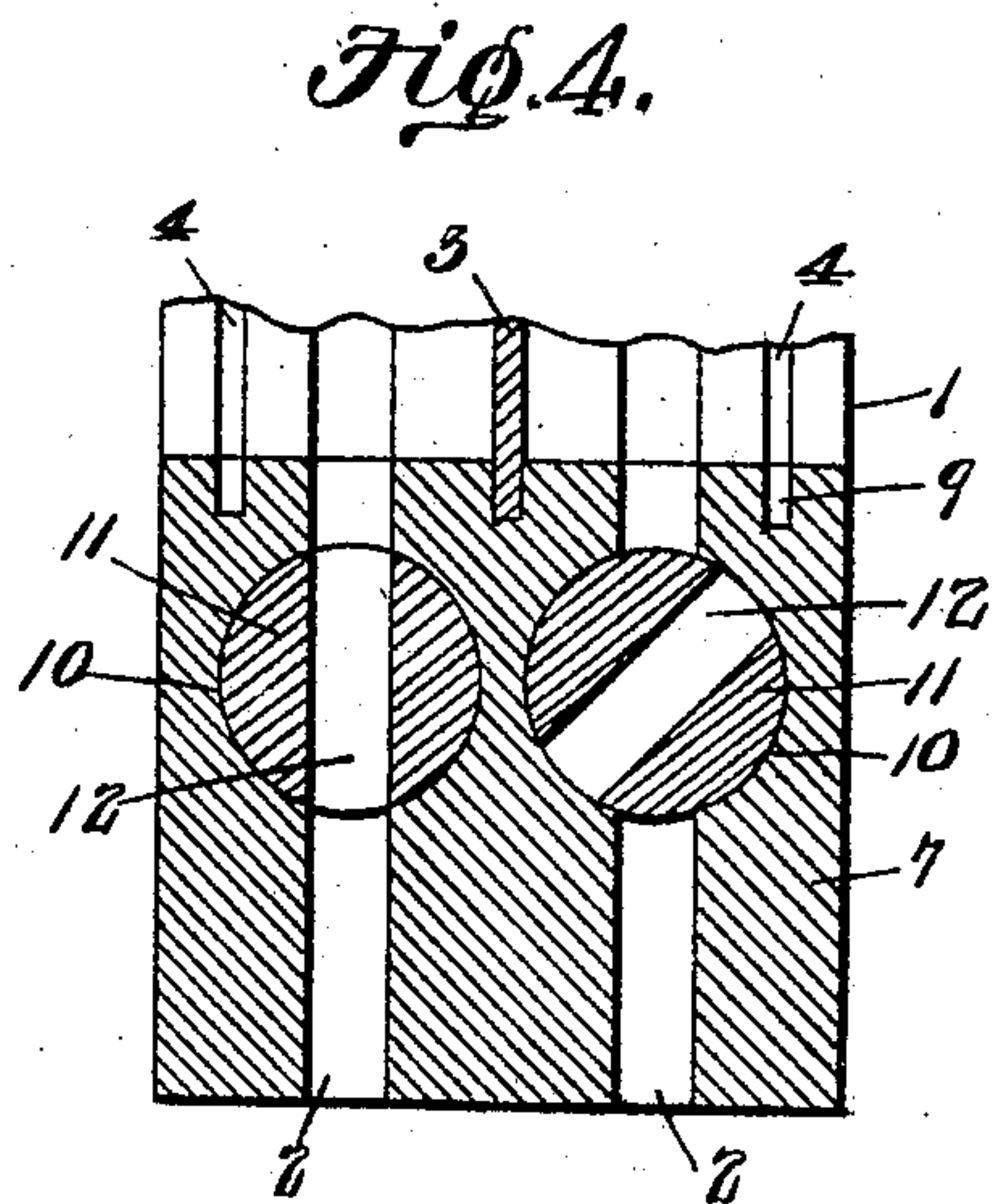
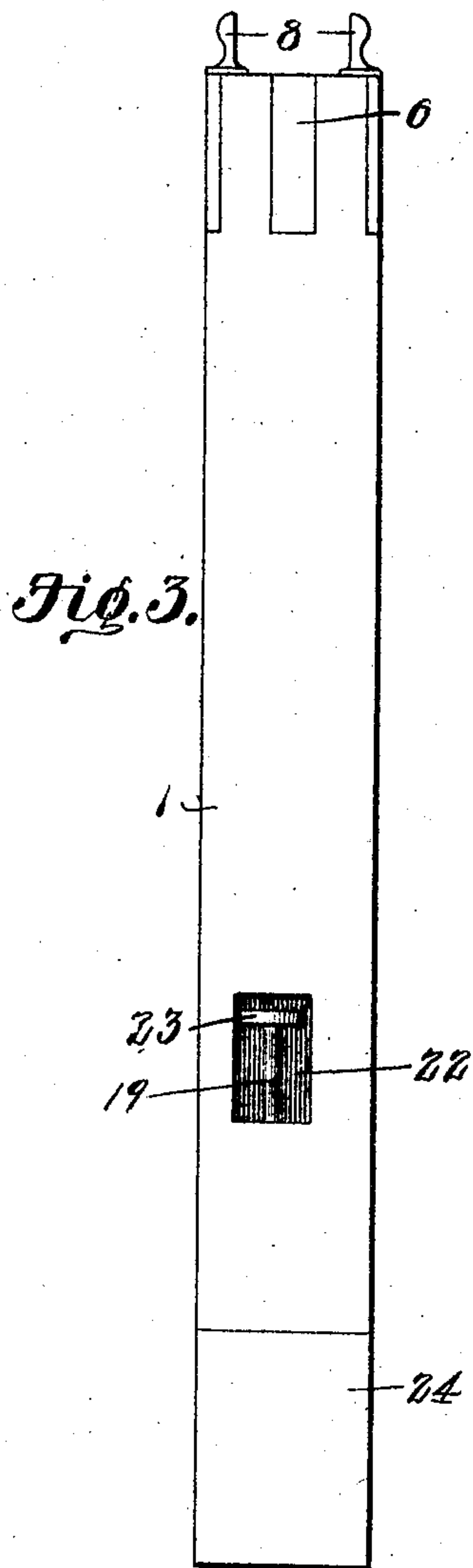
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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ARTHUR CLARENCE HAYDEN, OF BROCKTON, MASSACHUSETTS.

PHOTOGRAPHIC-PLATE HOLDER.

No. 848,241.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed January 31, 1906. Serial No. 298,863.

To all whom it may concern:

Be it known that I, ARTHUR CLARENCE HAYDEN, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented a new and useful Photographic-Plate Holder, of which the following is a specification.

This invention relates to photographic-plate holders, and has for its object to provide for conveniently discharging plates edgewise through one end of the holder and also to maintain a light-tight joint between the slides and the frame of the holder.

The present form of holder is particularly designed for use in connection with my developing apparatus which forms the subject-matter of an application for patent filed by me on February 2, 1906, Serial No. 299,205, and is primarily designed for discharging plates from the holder into the developing apparatus without the aid of a dark room.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a side elevation of a plate-holder of the present invention, parts being broken away to show the interior arrangement thereof. Fig. 2 is a cross-sectional view on the line 2 2 of Fig. 1. Fig. 3 is an edge view of the plate-holder. Fig. 4 is an enlarged fragmentary sectional view taken through the discharge end of the holder. Fig. 5 is a detail perspective view of a crank-arm for one of the closures at the discharge end of the holder. Fig. 6 is a fragmentary view, partly in section and partly in elevation, to illustrate the manner in which the present holder is employed when discharging a plate into a developing apparatus.

Similar numerals of reference designate corresponding parts in all of the figures of the drawings.

The present holder is a rectangular frame 1 of conventional form, the inner faces of its longitudinal sides being provided with spaced grooves or guideways 2, which intersect the discharge end of the frame, as shown in Fig.

4, and designed to receive photographic plates. Between the guideways 2 there is a suitable partition 3, which is fixed to the frame in some appropriate manner. Between each guideway 2 and the adjacent open side of the frame there is another guideway 4, in which is mounted any approved or conventional form of slide 5, the guideways 4 intersecting the end bar 6 of the frame and being closed at their other ends by the other end bar 7 of the frame. The slide 5 has the usual handle 8 for inserting and withdrawing the same. The inner face of the end bar 7 is provided with a transverse groove 9, communicating with the guideway 4 at opposite sides of the frame to receive the lower edge of the slide, so as to form a light-tight joint between the bottom of the slide and the bottom of the frame.

That portion of each guideway 2 which intersects the end bar 7 of the frame is in turn intersected by a transverse cylindrical bore 10, extending the entire width of the frame and open at each end for the reception of a cylindrical rotary closure 11, which is provided with a longitudinal diametric slot 12, capable of being alined with the guideway 2, so as to permit edgewise introduction and removal of a photographic plate. When the closure is turned to bring its slot out of alinement with the guideway 2, the plate is held against accidental displacement through the open ends of the plate-guideways.

For convenience in controlling the rotary closures each end thereof is provided with a crank 13, having at one end a cap or ferrule 14, embracing the reduced terminal portion 15 of the closure and held thereon by means of a pin 16, piercing the ferrule and the roller. It will here be explained that the crank-arm of the other closure is at the other edge of the frame, each end of the end bar 7 being cut away, as at 17, to form a recess or chamber in which the adjacent crank-arm is capable of working. Each crank-arm is slotted or bifurcated, as at 18, for the reception of the lower end of an endwise-movable controlling-rod 19, working in a guideway or passage 20, piercing the lower end of the adjacent side bar of the frame. By preference the lower end of the rod is provided with an annular groove 21, which grooved portion is received within the slot of the crank-arm and produces upper and lower shoulders to engage opposite sides of the crank-arm, and thereby swing the latter in either direction, according

to the direction of movement of the rod. The upper end portion of the rod works in a recess 22, intersecting the outer face of the side bar of the frame, and carries a head or
 5 finger piece 23, accessible through the opening 22 for convenience in moving the rod endwise in either direction. A suitable closure-plate 24 is employed to close the chamber or recess 17, so as to prevent the lodg-
 10 ment of foreign matter in the chamber, which would interfere with the proper working of the closures.

To illustrate the manner in which the present holder has been particularly designed for
 15 use, I have shown in Fig. 6 of the drawing a portion 34 of the case of a developing apparatus, the top of the case being pierced by a chute 35, to which leads a seat 36, as specifically set forth in the copending application,
 20 to which reference has been hereinbefore made. When the photographic plates have been exposed in the usual manner in a camera and it is desired to develop the plates, the plate-holder is removed from the camera and
 25 then its discharge end is thrust into the seat 36 of the developing apparatus, whereupon the push-rod 19 is manipulated to open the adjacent rotary closure 11, so as to permit the photographic plate (shown at 37 in Fig.
 30 6) to drop from the plate-holder through the chute 35 and into the developing apparatus.

It will now be understood that the transfer of the photographic plates from the holder to a developing apparatus may be accomplished
 35 without the aid of a dark room and without any liability of the plates becoming light-struck during the transfer.

Having thus described the invention, what is claimed is—

40 1. A photographic-plate holder having a plate-guideway intersecting one edge of the holder, a closure for the open end of the guideway, and means carried wholly within the frame of the holder for controlling the
 45 closure.

2. A photographic-plate holder having a plate-guideway intersecting one edge thereof, a slotted closure for the open end of the guideway, and means carried wholly within the
 50 frame of the plate-holder for bringing the slotted portion of the closure into and out of alinement with the guideway.

3. A photographic-plate holder having a plate-guideway intersecting one edge thereof,
 55 a rotary closure for the open end of the guideway and means carried wholly within the frame of the holder for controlling the closure.

4. A photographic-plate holder having a plate-guideway intersecting one edge thereof, 60 a slotted rotary closure for the open end of the guideway, and means carried wholly within the frame of the holder for rotating the closure to bring its slot into and out of alinement with the guideway. 65

5. A photographic-plate holder having a plate-guideway intersecting one edge thereof, a rotary slotted closure for the open end of the guideway, a crank carried by the closure, and a push-rod connected to the crank 70 and carried by the plate-holder.

6. A photographic-plate holder having a plate-guideway intersecting one edge thereof, a closure for the open end of the guideway, a push-rod working in the frame of the plate- 75 holder and connected to the closure, the frame of the plate-holder having an opening exposing the push-rod, and a finger-piece carried by the push-rod and accessible through the opening. 80

7. A photographic-plate holder having a plate-guideway intersecting one edge thereof, a rotary closure for the open end of the guideway, a crank-arm carried by the closure, a push-rod working in a guideway in the frame 85 of the plate-holder and connected to the crank-arm, the frame of the plate-holder having an opening exposing a portion of the push-rod, and a finger-piece carried by the push-rod and accessible through the opening 90 formed in the holder.

8. A photographic-plate holder having a pair of plate-guideways intersecting one edge thereof, rotary slotted closures for the respective guideways, a terminal crank upon 95 one of the closures, another crank upon the opposite end of the other closure, push-rods working in opposite sides of the plate-holder and connected to the respective cranks, the frame of the plate-holder being provided 100 with openings exposing portions of the push-rods to permit actuation thereof.

9. A photographic-plate holder having a plate-guideway, a rotary closure therefor, a slotted crank carried by the closure, and a 105 push-rod having a reduced portion working in the slot of the crank and forming shoulders for respective engagement with opposite sides of the crank-arm.

In testimony that I claim the foregoing as 110 my own I have hereto affixed my signature in the presence of two witnesses.

ARTHUR CLARENCE HAYDEN.

Witnesses:

ADNA K. PARRIS,

WILLIAM N. SHIPMAN.