

(No Model.)

3 Sheets—Sheet 1.

A. L. CRAWFORD.
CASH REGISTER AND TILL.

No. 503,579.

Patented Aug. 22, 1893.

Fig. 1.

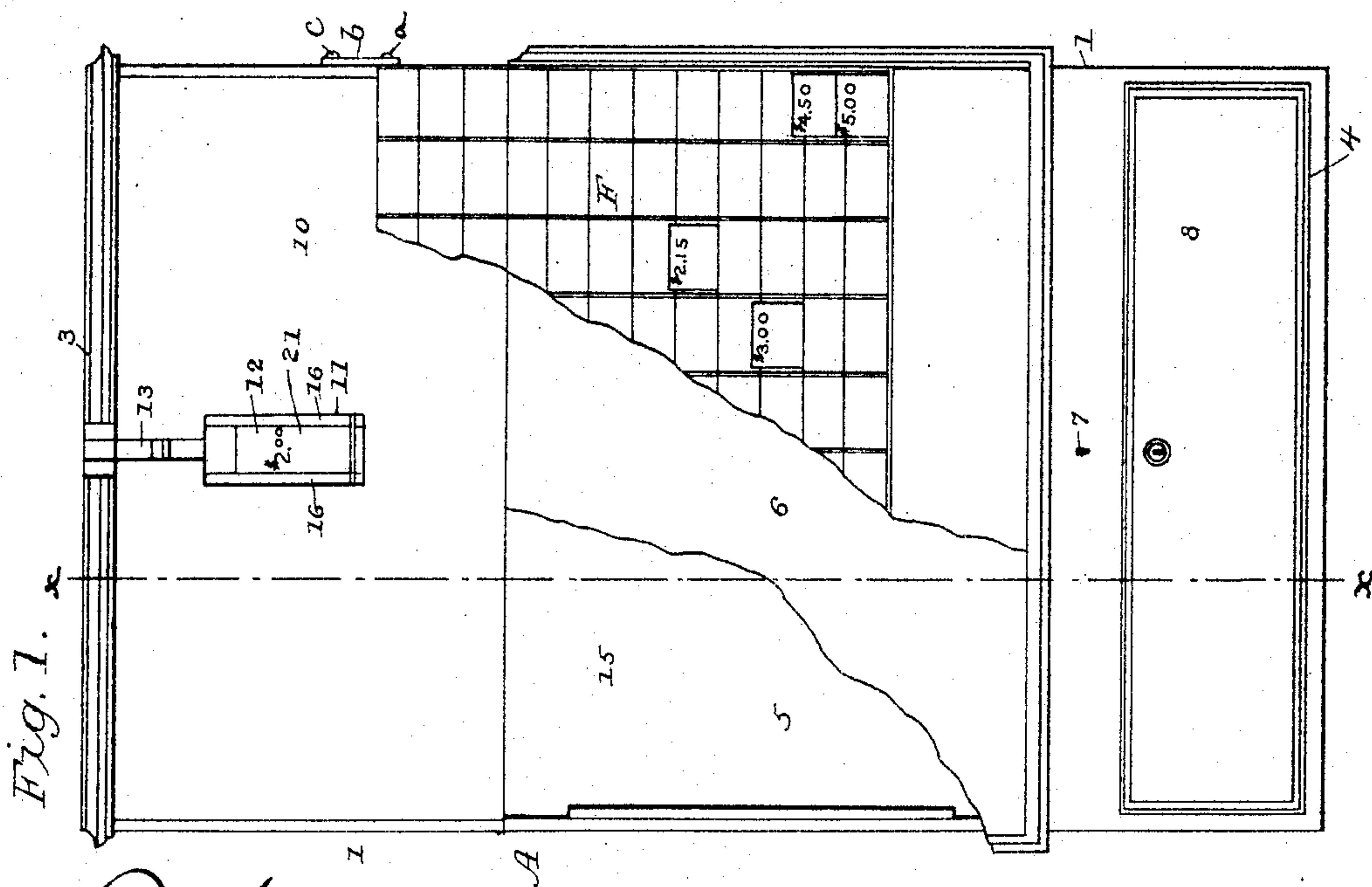
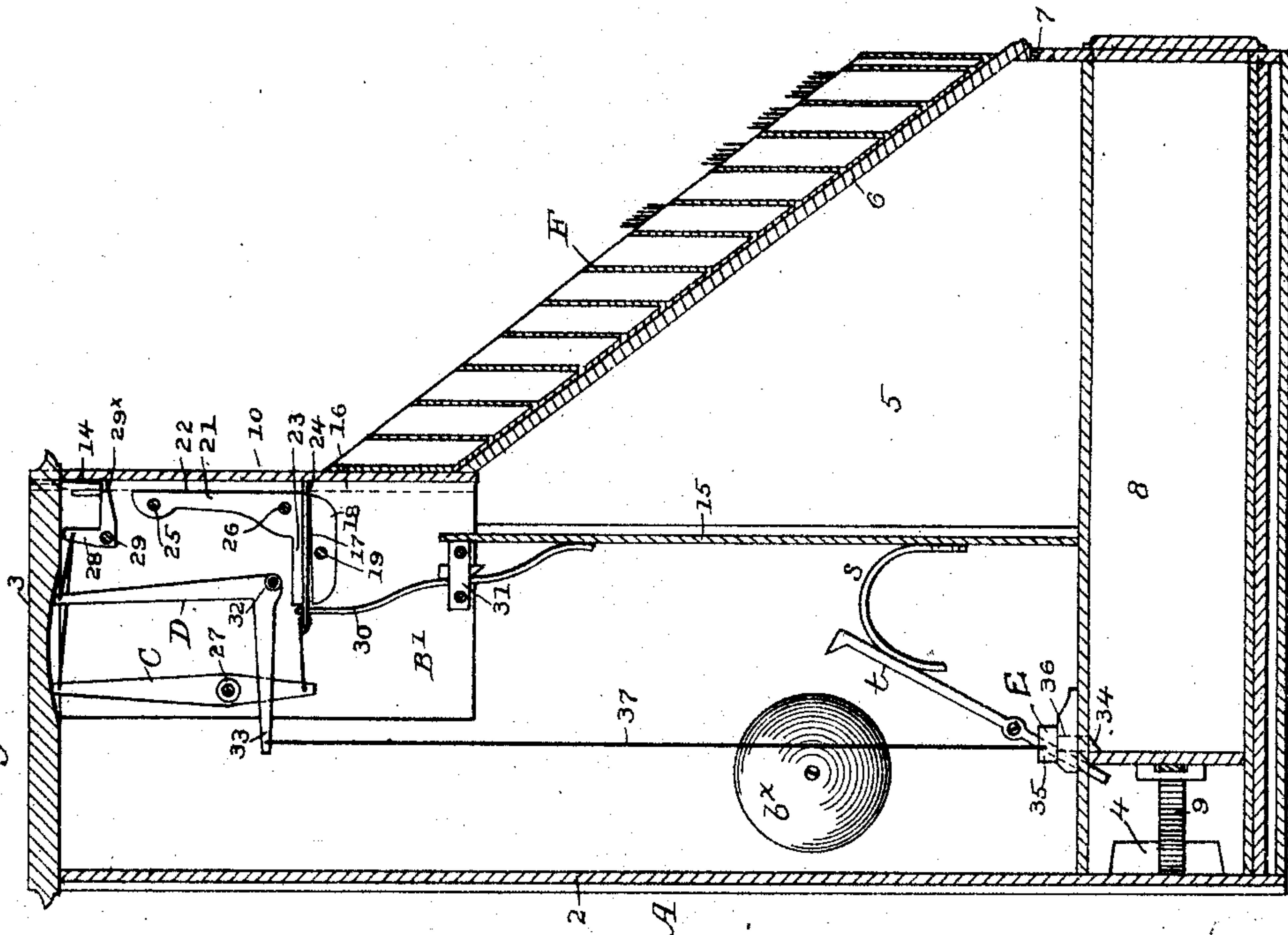


Fig. 2.



Witnesses
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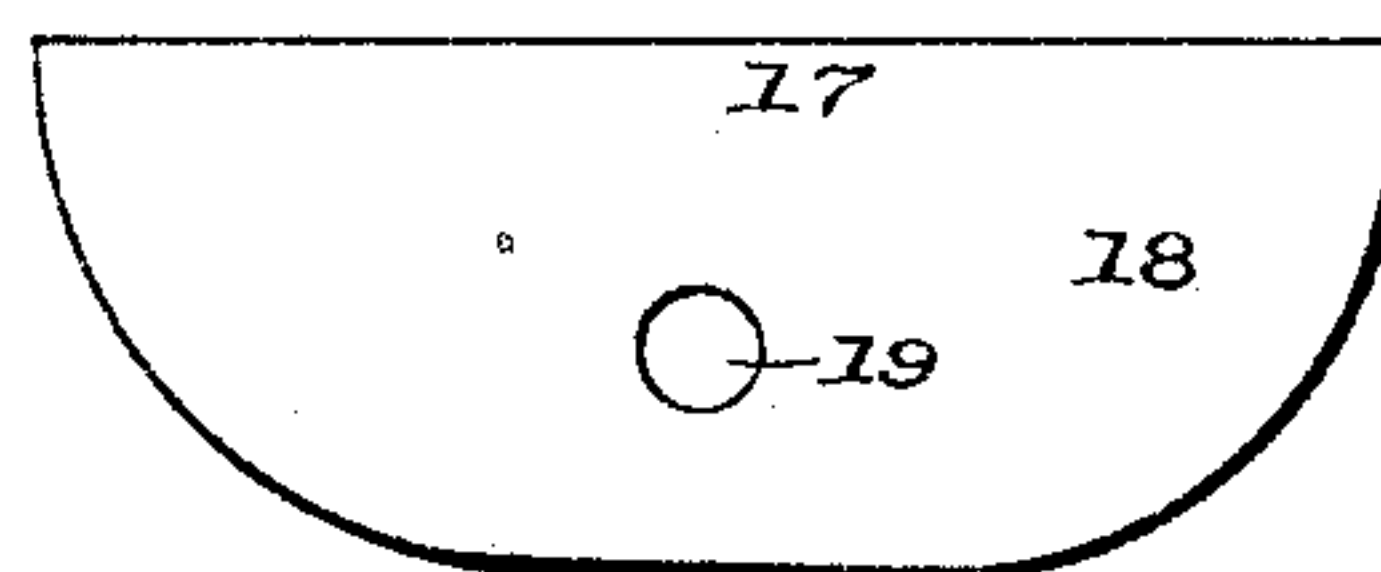
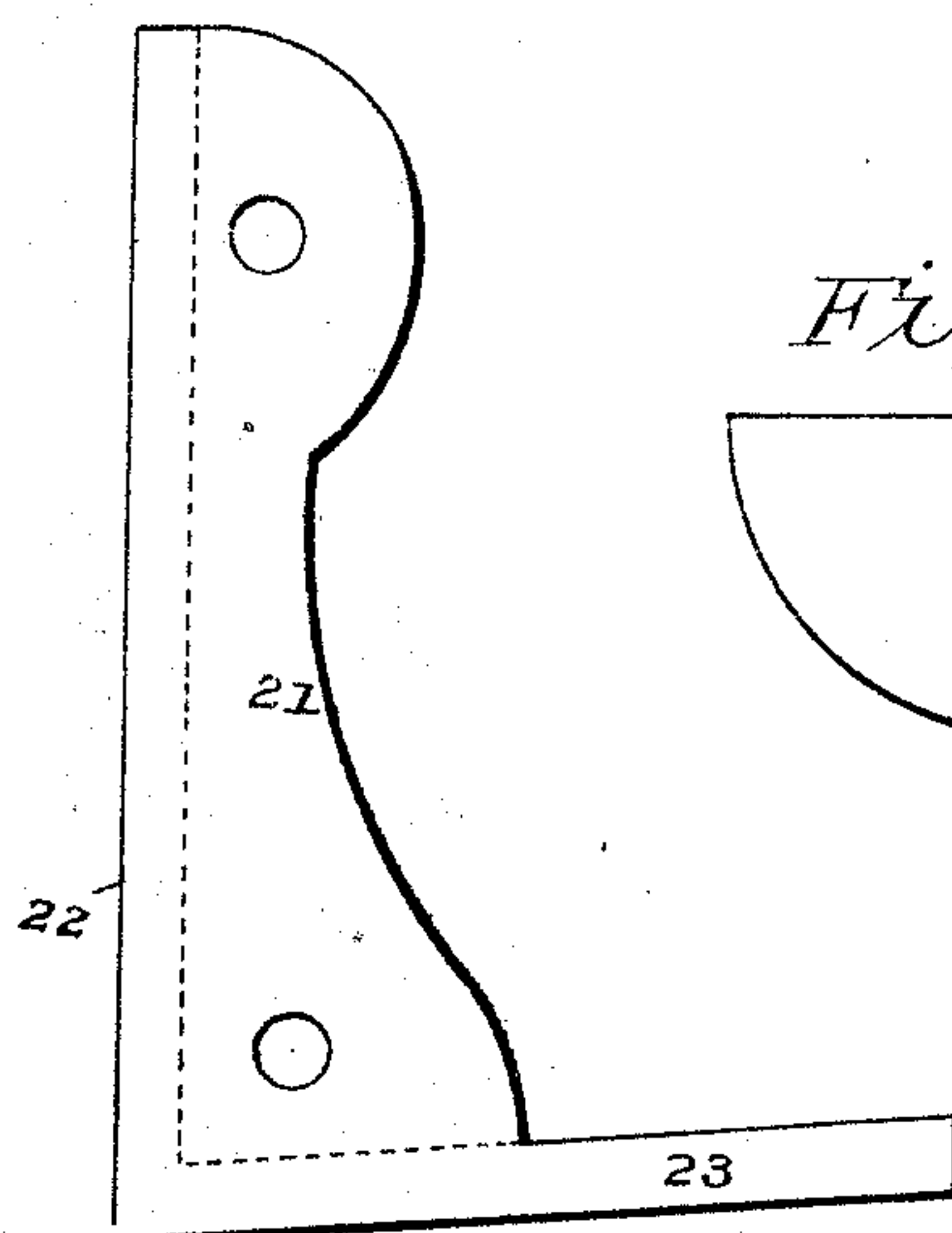
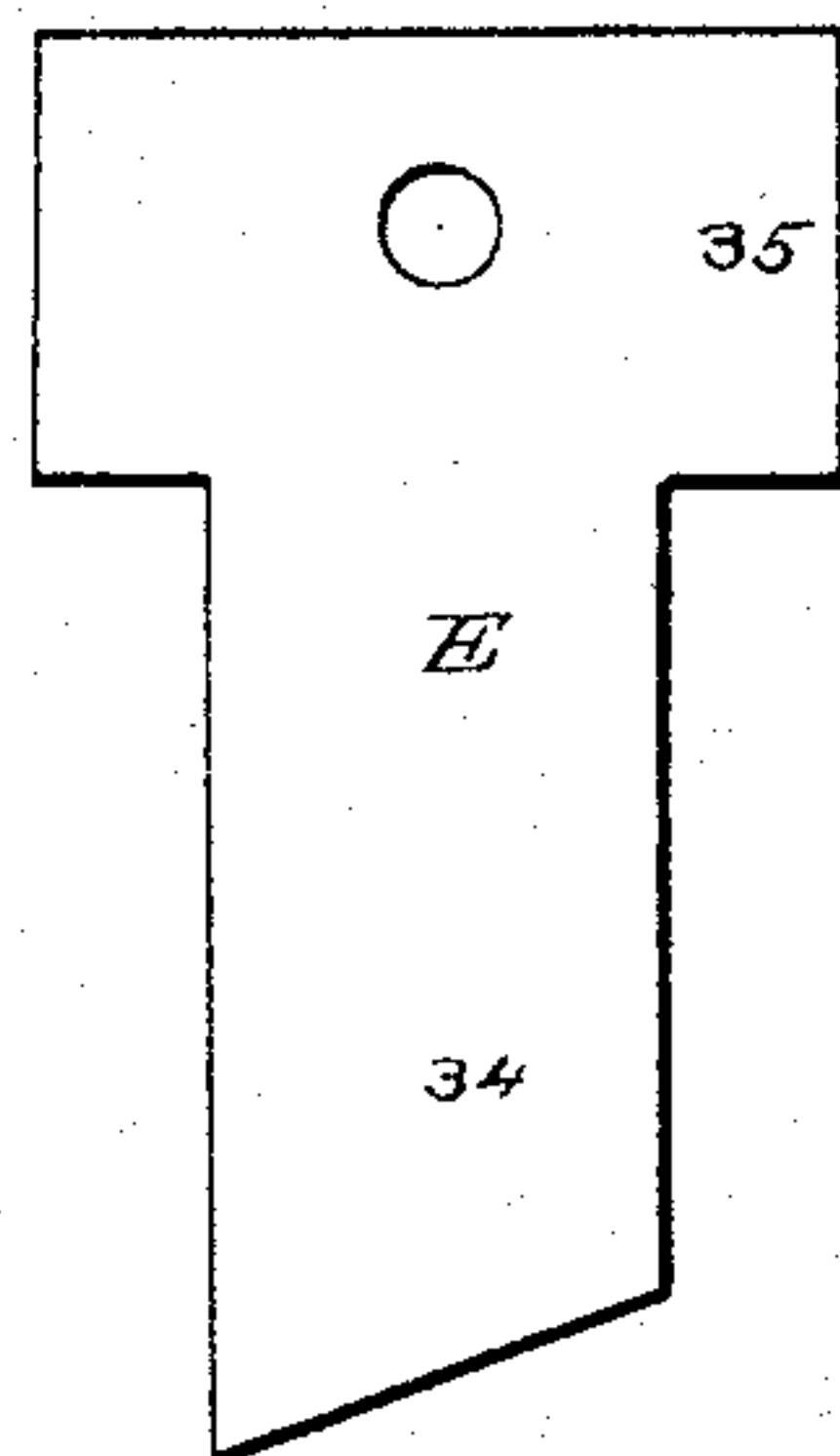
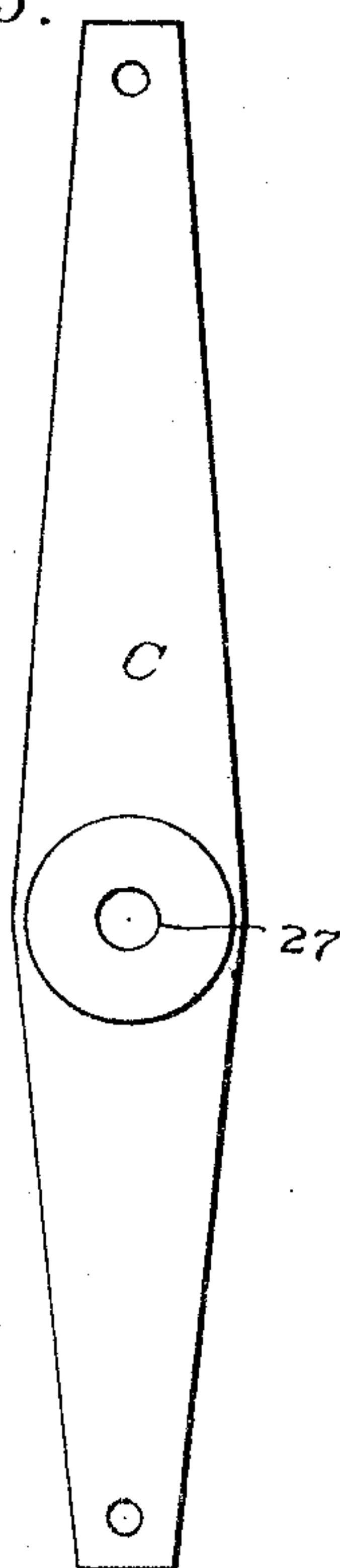
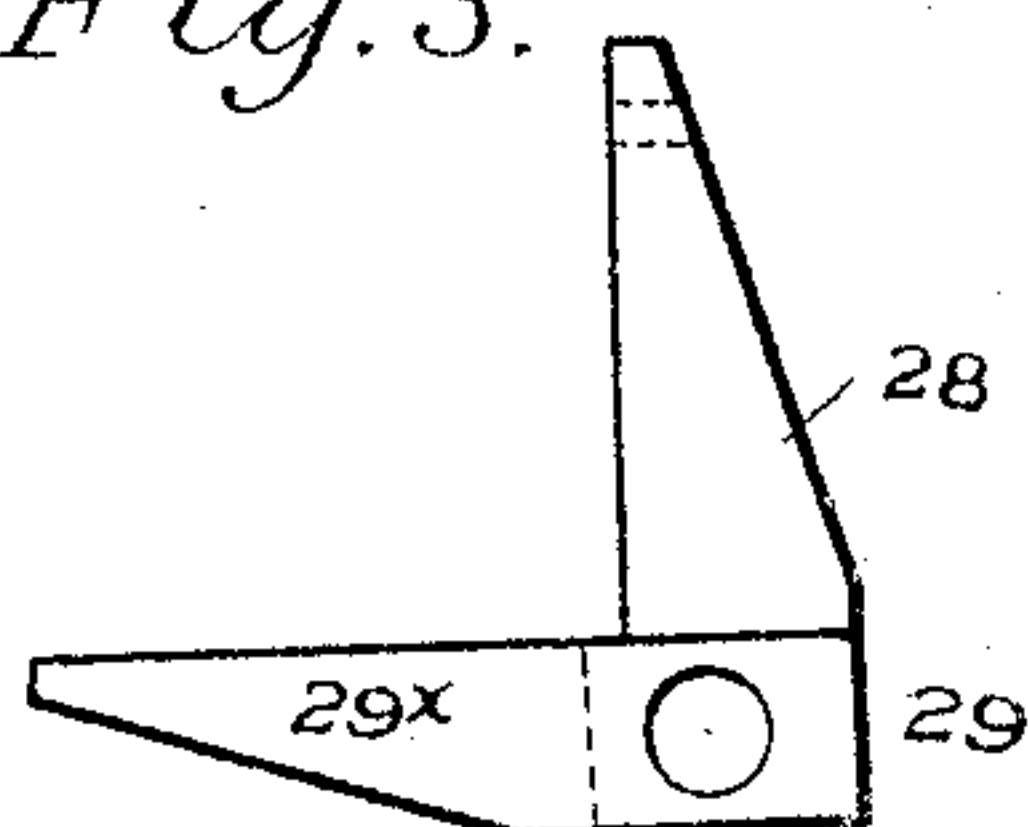
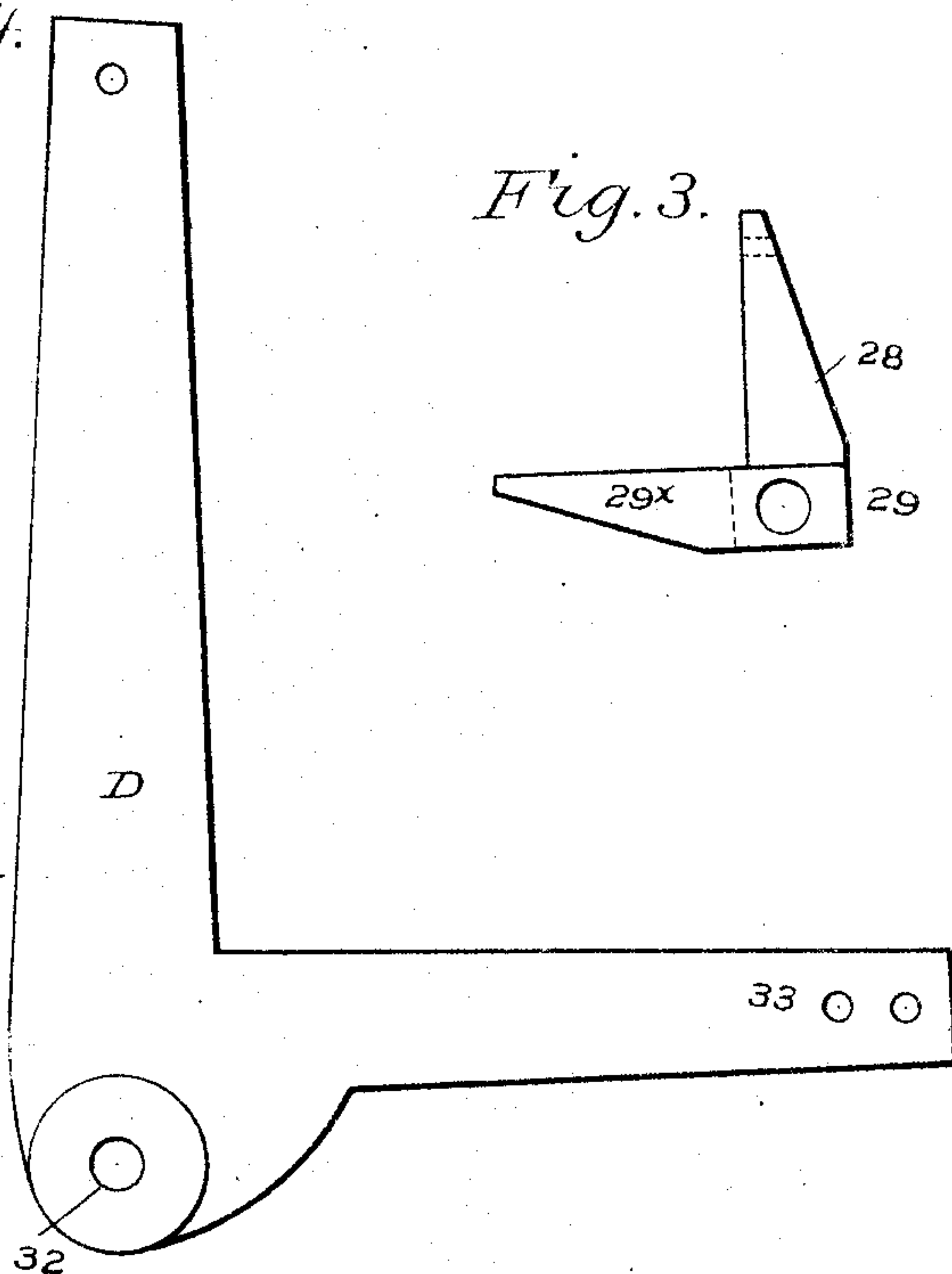
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3 Sheets—Sheet 2.

A. L. CRAWFORD.
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(No Model.)

3 Sheets—Sheet 3.

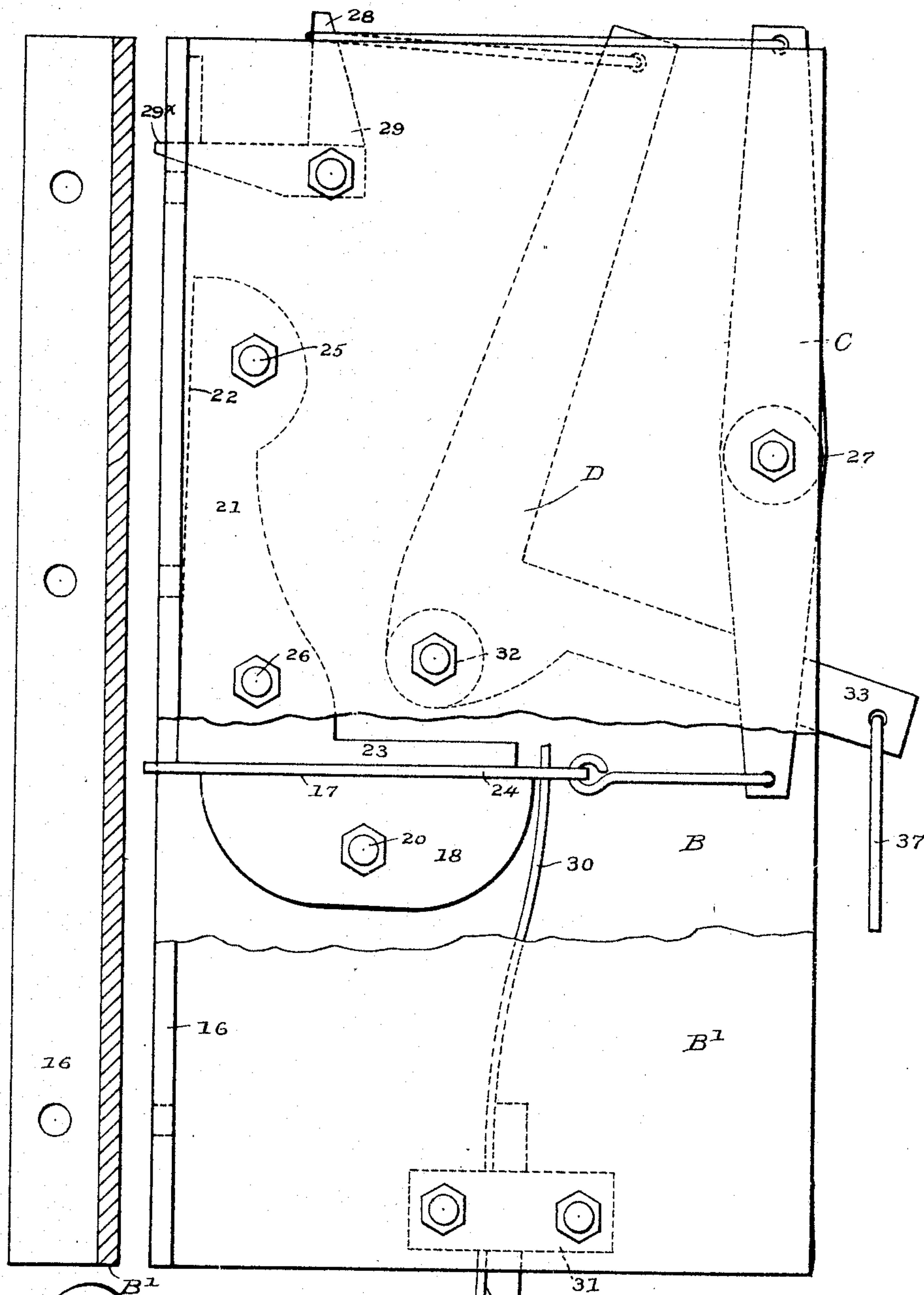
A. L. CRAWFORD.
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Fig. 10.

Fig. 9.



Witnesses

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UNITED STATES PATENT OFFICE.

ANDREW L. CRAWFORD, OF COLUMBUS, GEORGIA.

CASH REGISTER AND TILL.

SPECIFICATION forming part of Letters Patent No. 503,579, dated August 22, 1893.

Application filed April 27, 1893. Serial No. 472,103. (No model.)

To all whom it may concern:

Be it known that I, ANDREW L. CRAWFORD, a citizen of the United States of America, residing in Columbus, in the county of Muscogee, in the State of Georgia, have invented a new and useful Cash Register and Till, of which the following is a specification.

My invention has relation to improvements in cash-register and tills, whereby an account may be kept of the cash tickets deposited and the corresponding amount of money deposited be ascertained, and the object is to provide a mechanism for the purposes mentioned, which is reliable in operation and which is of the most simple character and which is at the same time amply efficient to effect the purposes.

In the accompanying drawings: Figure 1 is front view in elevation, the lid and ticket tray being broken away to show the relation to the case. Fig. 2 is a vertical section on the line $x-x$ of Fig. 1 showing one of the side-plates of the mechanism removed to illustrate the levers. Fig. 3 is detail of the rocking ticket-guard by which the levers are operated. Fig. 4 is a detail of the lever which operates the drawer-latch. Fig. 5 is a detail of the lever which operates the ticket slide. Fig. 6 is a detail of the drawer-latch. Fig. 7 is the upper bracket over the ticket slide. Fig. 8 is the under bracket. Fig. 9 is a view of the plates holding the mechanism. Fig. 10 is a detail showing the lateral flange of the bracket-plate.

A designates the box or casing composed of duplicate side pieces 1, back piece 2, top or cover 3 and having provided therein a drawer-way 4, and ticket-receptacle 5, having inclined front, covered by a lid 6, provided with a lock 7, to secure it. In the drawer way or space 4 is arranged the money-drawer or till 8, on the back end of which is secured a spring 9, bearing with its free ends against the inner face of the back-piece 2, and serving when the latch is released from engagement with the end of the drawer, to move the drawer outward. In the vertical and upper portion 10, of the front of the casing, is a vertical opening or recess 11, in which is secured a transparency 12, of any proper material, the top of the glass being a distance below

the top of the front piece of the case, to provide a finger slot 13 down which the finger moves when manipulating the tickets. On the inner edge faces of the slot 13 are guide-pieces 14, having inclined faces to direct the tickets inward and on to the rocking ticket-guard. A partition 15, parallel with the top-piece 10, constitutes the back of the ticket-receptacle.

B, B', designate duplicate metal brackets or plates, oppositely arranged and secured in relative position to the front piece 10 by means of screws let through lateral flanges 16, as indicated in Fig. 9 of the drawings. The inner edges of these plates B, B', lap over the side edges of the glass 12, and hold it firmly in the recess made to receive it. In the plates B, B' are formed the requisite number of bearings to take the arbors or fulcrums of the levers and rocking ticket-guard. Between these bracket-plates, at about the lower end of the glass, is a plate 17 having rather broad depending side-pieces 18, to bear against the inner faces of the bracket plates, and having registering bolt-holes 19, through which is projected a fastening bolt 20. This plate 17 constitutes the lower floor of the slide which controls the entrance of the ticket to the receptacle.

21 designates a bracket having its vertical limb 22, arranged parallel with the inner face of the glass 12, and with a space between the two sufficient to readily admit a cash ticket, and having its lower part or limb 23, at right angles to the limb 22, and arranged parallel to the face of the plate 17, with space sufficient between them to take the ticket-slide 24, substantially as shown in Fig. 2 of the drawings. The bracket 21 is held in position by bolts 25, 26, let through the bracket plates and through flanges or ears on the bracket 21.

C designates a lever fulcrumed between the bracket plates at 27, and having its lower arm suitably connected to the ticket slide 24, and to its upper end similarly connected to the vertical arm 28, of the rocking ticket-guard 29. The ticket slide 24, stands normally across and closing the ticket-slot, and is so held by a spring 30, arranged to press the slide forward. The spring 30 is held in a plate 31, having an aperture or slot through

which it is passed and then kept in place by a key, substantially as shown in the drawings.

D designates a bell-crank lever fulcrumed at 32, and having the upper end of its vertical arm connected to the vertical arm 28, of the ticket guard 29, as shown; and having the end of its lower and horizontally extended arm 33, fastened to the upper end of the wire which carries the drawer-latch. The rocking ticket guard 29, is angular in shape having its horizontal arm 29^x, recessed to straddle the finger-slot, substantially as shown. This ticket-guard constitutes the lever by which the slide-lever and the lever connected to the drawer latch are operated; in fine, by this guard the whole mechanism and device are operated through the instrumentality of the ticket in its passage through the ticket slot. The arm 29^x sets across the ticket-slot and is prevented from moving or turning too far upward by lodgment against the lower end of the pieces 14, which serve to hold it.

E designates the latch shown in detail in Fig. 6 of the drawings. This consists of a vertical latch-bar 34, having an inclined latch-end and a heavy cross-piece 35, which acts as a weight to force the latch down in the groove or way 36, through the cover or floor of the till, into engagement with the end piece thereof, as shown in Fig. 2 of the drawings. The latch is connected to the horizontal arm of the bell crank lever D, by a cord or wire 37.

On the inclined lid of the ticket receptacle is disposed the ticket tray F, having the ends and cross partition arranged at an incline with the bottom which are stepped as usual in such trays, so that the upper portion of each row of tickets is displayed. To hold the tray detachably to the casing, I hang hooks *a*, *b*, at the upper corners which engage staples or lugs *c*, on the sides of the case. By this connection the ticket tray is held secure in its position on the front of the case, and being detachably held, it can be readily and conveniently removed whenever desired.

To give notice or alarm when the drawer or till is opened, I mount a bell *b*^x, in the case, and fulcrum a tappet *t*, with a spring *s* bearing against it; the lower end of the tappet is normally held on the end of the till when closed and away from contact with the bell, so that when the till is moved outward the spring *s* forces the tappet against the bell and gives the alarm.

The operation of my invention is as follows: Whenever it is desired to make a deposit of cash in the till, a ticket is selected having on its face the designated amount and this ticket is pushed into the ticket-slot with its end on the tongue or arm of the ticket guard, and that pushed down. This causes the guard to pull with its other arm on the bell-crank lever which lifts the latch and releases the drawer which is moved open by the force of the spring behind it; the same movement op-

erates the lever which is connected to the ticket-slide, drawing that element back from across the ticket-slot, and permitting a ticket already in the slot to drop down into the ticket receptacle; the last ticket being pushed downward in the slot until it escapes from the ticket guard, the action of the spring and the force of the weighted latch return the guard to normal position and the ticket slide is moved across the ticket slot quickly in time to intercept the ticket and hold it in view until released by the next operation of the mechanism.

It will be perceived that I operate the mechanism by the ticket when inserted in the slot, thus dispensing with all the mechanism usually associated with plunger-rods, levers, and other means, for bringing into operation the mechanism for operation of the till and slot-slide, &c.

Having described my invention, what I claim is—

1. The combination of a rocking-lever and ticket-guard fulcrumed to set with one of its arms across the ticket-slot, a lever connected therewith, and a weighted latch-bar connected to the latter named lever, whereby the rocking-lever may be operated by the progress of a ticket in the slot and the latch disengaged from the till.

2. The combination of a rocking-lever fulcrumed to set with one of its arms across the ticket-slot, a lever connected to the rocking-lever, a ticket bracket secured to form one wall of the ticket slot, a ticket-slide horizontally arranged in the ticket-bracket and connected to the lever, and a spring to push the ticket-slide inward and hold it across the ticket-slot.

3. The combination of a rocking-lever fulcrumed to set with one of its arms across the ticket-slot, a lever D, connected therewith, a weighted-latch connected to the lever D, a second lever C, connected to the rocking-lever, a ticket-bracket arranged to form one wall of the ticket-slot, a horizontally arranged slide in the ticket-bracket and connected to the lever C, and a spring to push the ticket slide inward, whereby when the rocking lever is depressed the latch is lifted and the ticket slide is moved from across the slot.

4. The combination of the rocking-lever 29, a bell-crank lever connected therewith, and a latch E, connected to the bell-crank lever, said latch consisting of a latch-bar vertically arranged and a cross piece on the upper end thereof constituting a weight.

5. In a cash register and till, the combination of the following organized means: a rocking-lever 29 fulcrumed to set across the ticket-slot, a bracket forming the back wall of the ticket-slot and having a horizontal slot therein, a slide in the horizontal slot, a lever connected to the rocking lever to pull the slide from across the ticket-slot, a spring to push the slide back across the ticket-slot, a lever con-

nected to the rocking-lever, and a latch in engagement with the till connected to the last named lever.

5 6. In a cash register and till, the combination with the cash-drawer and the ticket-slot leading into the ticket receptacle, of a rocking-lever fulcrumed to set with one of its arms across the ticket-slot, a latch to engage the till, a slide to close the ticket-slot, and levers
10 intermediate of the rocking-lever and the slide and the latch, substantially as and for the purpose specified.

15 7. In a cash register and till, the combination of a receptacle formed with a ticket-slot, a lever in the path of the ticket-slot, and levers connected to the said lever to actuate a latch on the till-drawer and a ticket-slide projected across the slot.

20 8. In a cash register and till, the combination of a receptacle formed with a ticket-slot, a lever in the path of the ticket-slot, and le-

vers connected thereto to close the ticket slot and control the movement of the drawer whereby when a ticket is forced down on the lever in the path of the slot the levers of the
25 till and ticket-slide are operated.

9. The combination in a cash-register and till, provided with a ticket slot a ticket-slide to rest across the ticket-slot and a latch to control the till of a lever in the path of the
30 ticket slot, and levers connected to the ticket slide and to the till-drawer latch, whereby when a ticket is forced down the slot the levers are actuated, as and for the purpose specified.
35

In witness whereof I have hereto set my hand in the presence of two attesting witnesses.

ANDREW L. CRAWFORD.

Attest:

E. B. GIBSON,
T. F. RIDENHOUR.