

No. 822,598.

PATENTED JUNE 5, 1906.

E. M. GOLDSMITH.
CLOCK.

APPLICATION FILED JULY 21, 1903.

3 SHEETS—SHEET 1.

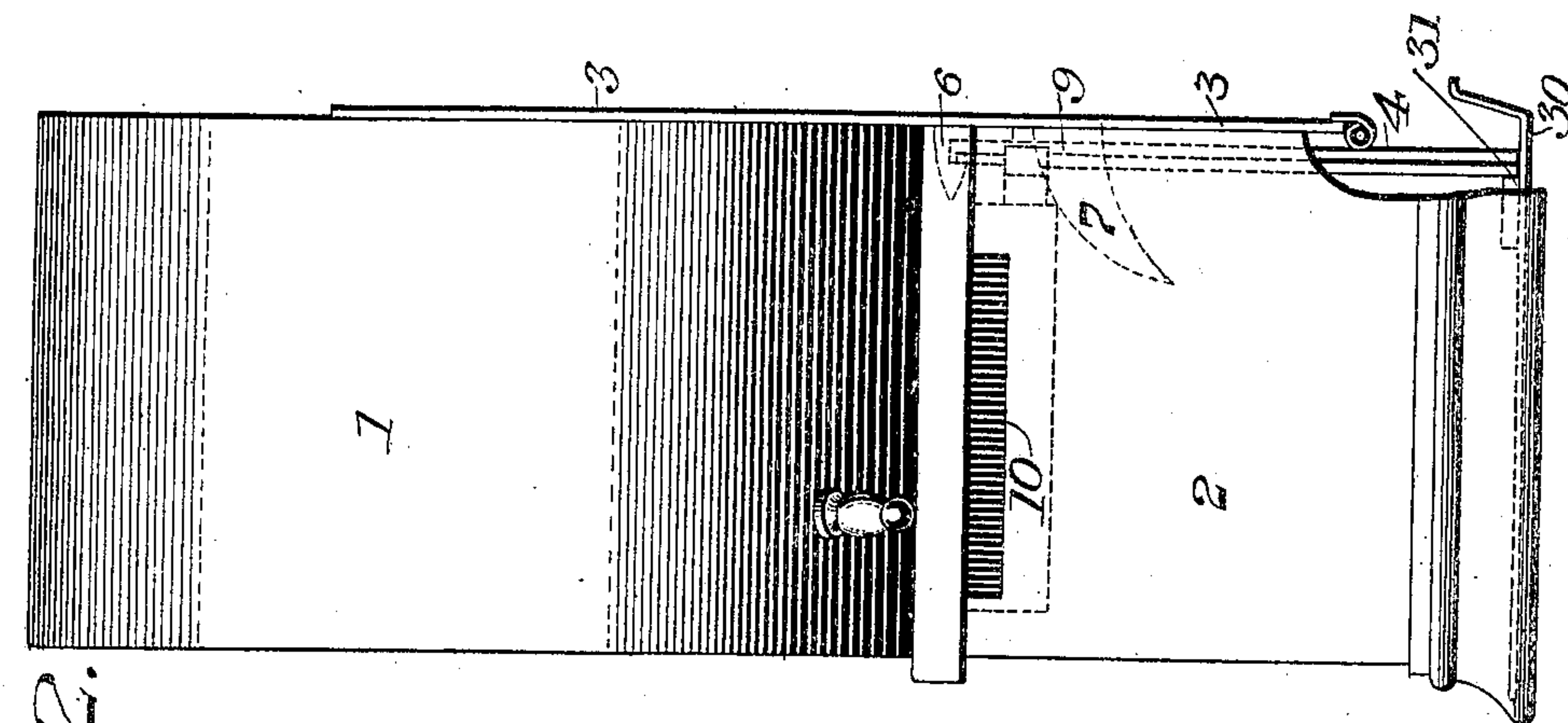


Fig. 2.

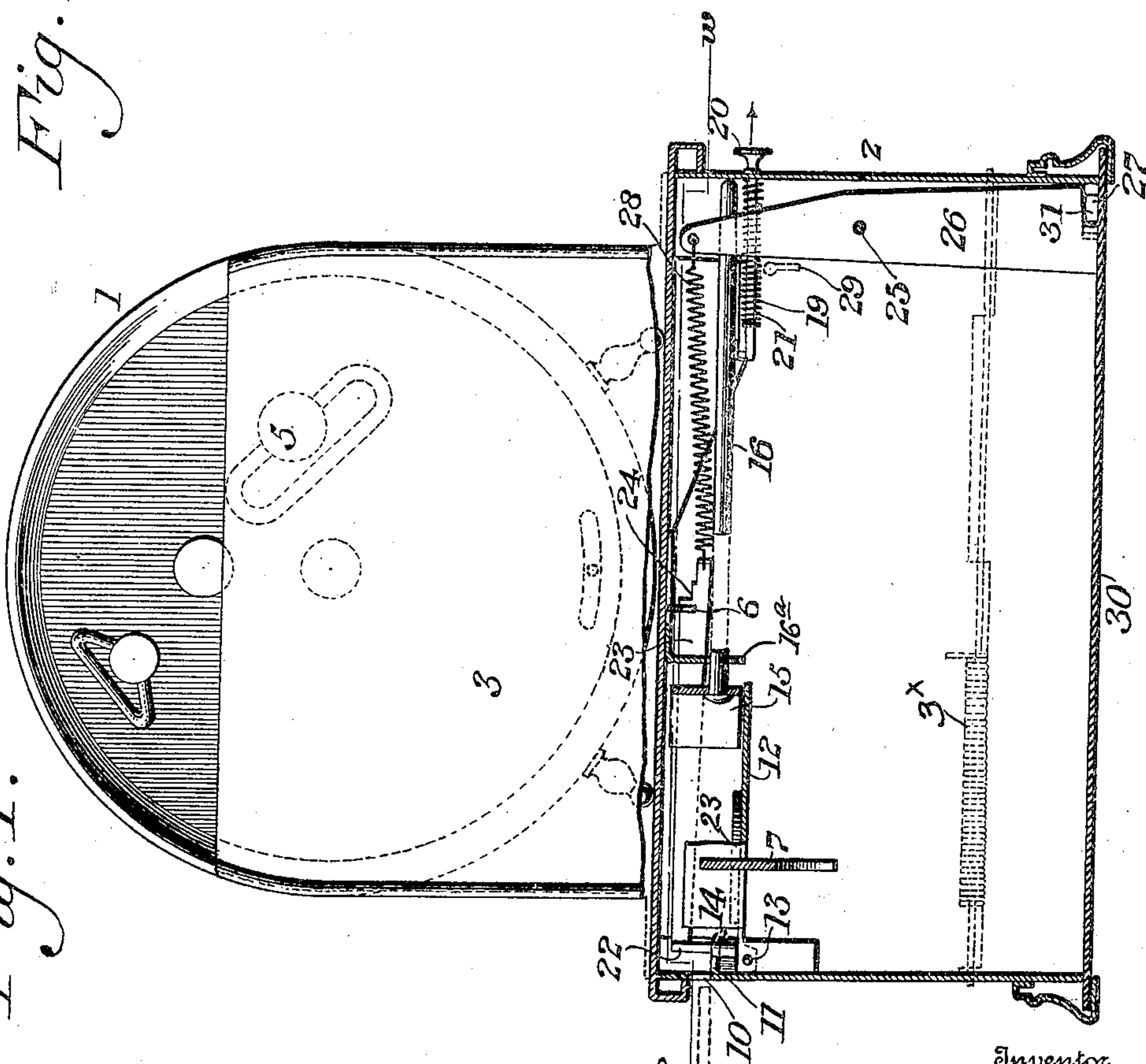


Fig. 1.

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3 SHEETS—SHEET 2.

Fig. 3.

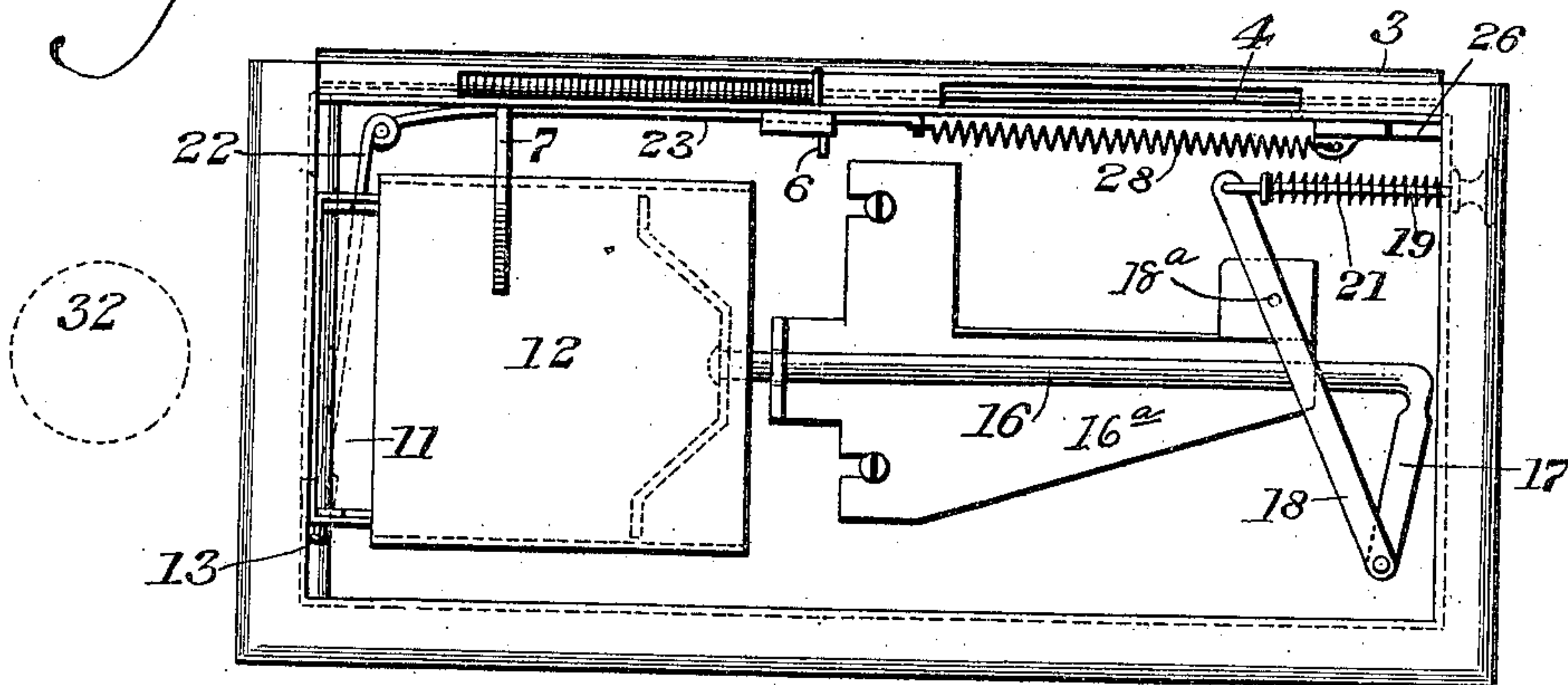


Fig. 4.

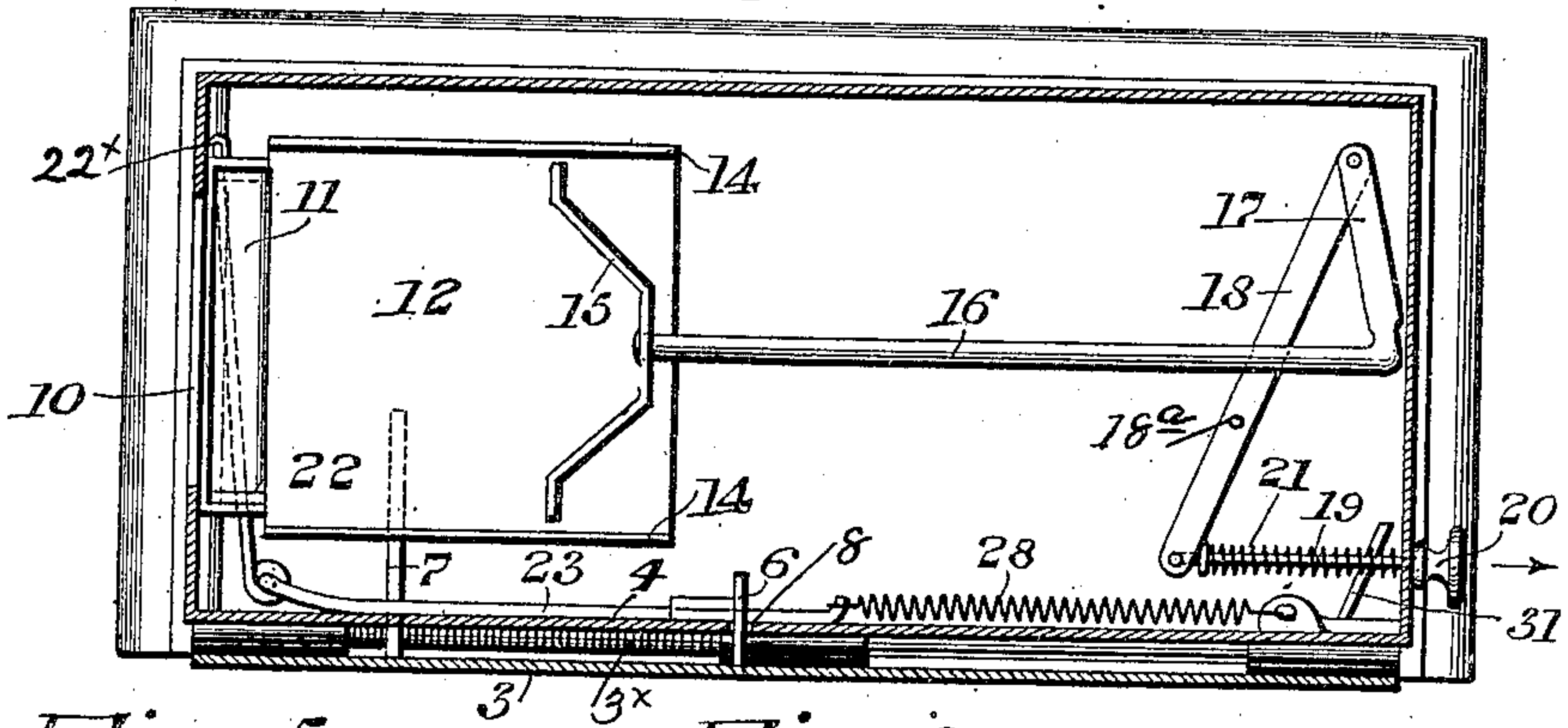


Fig. 5.

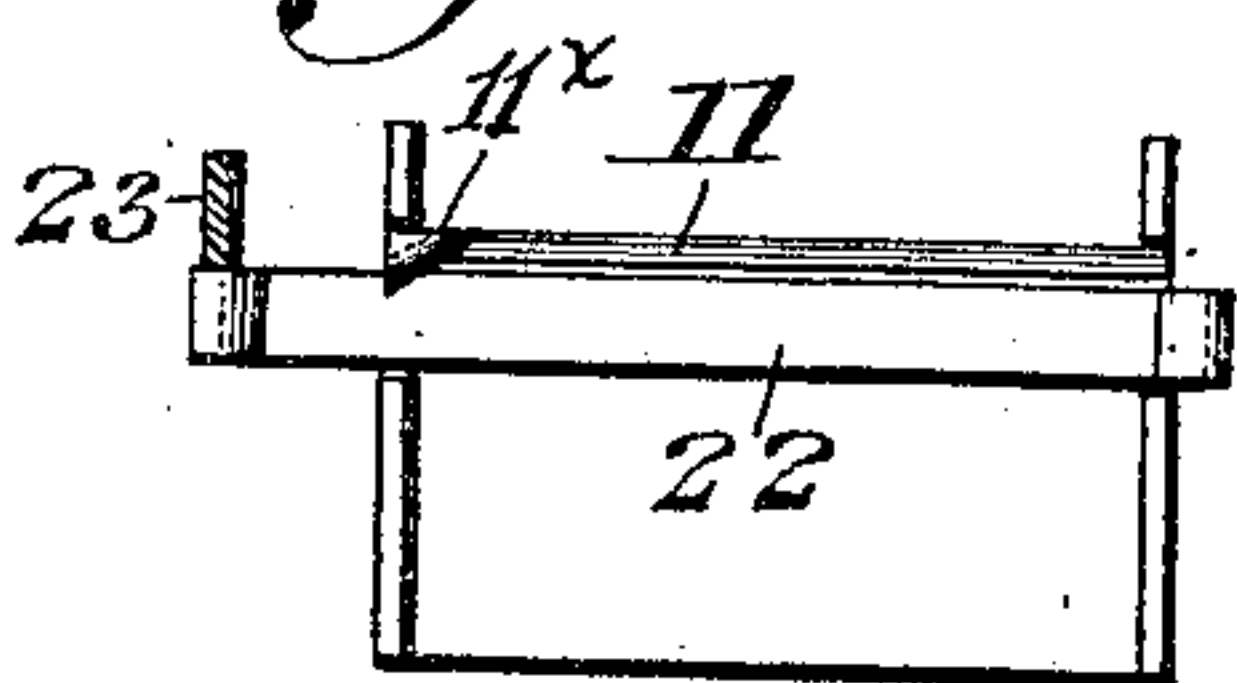


Fig. 6.

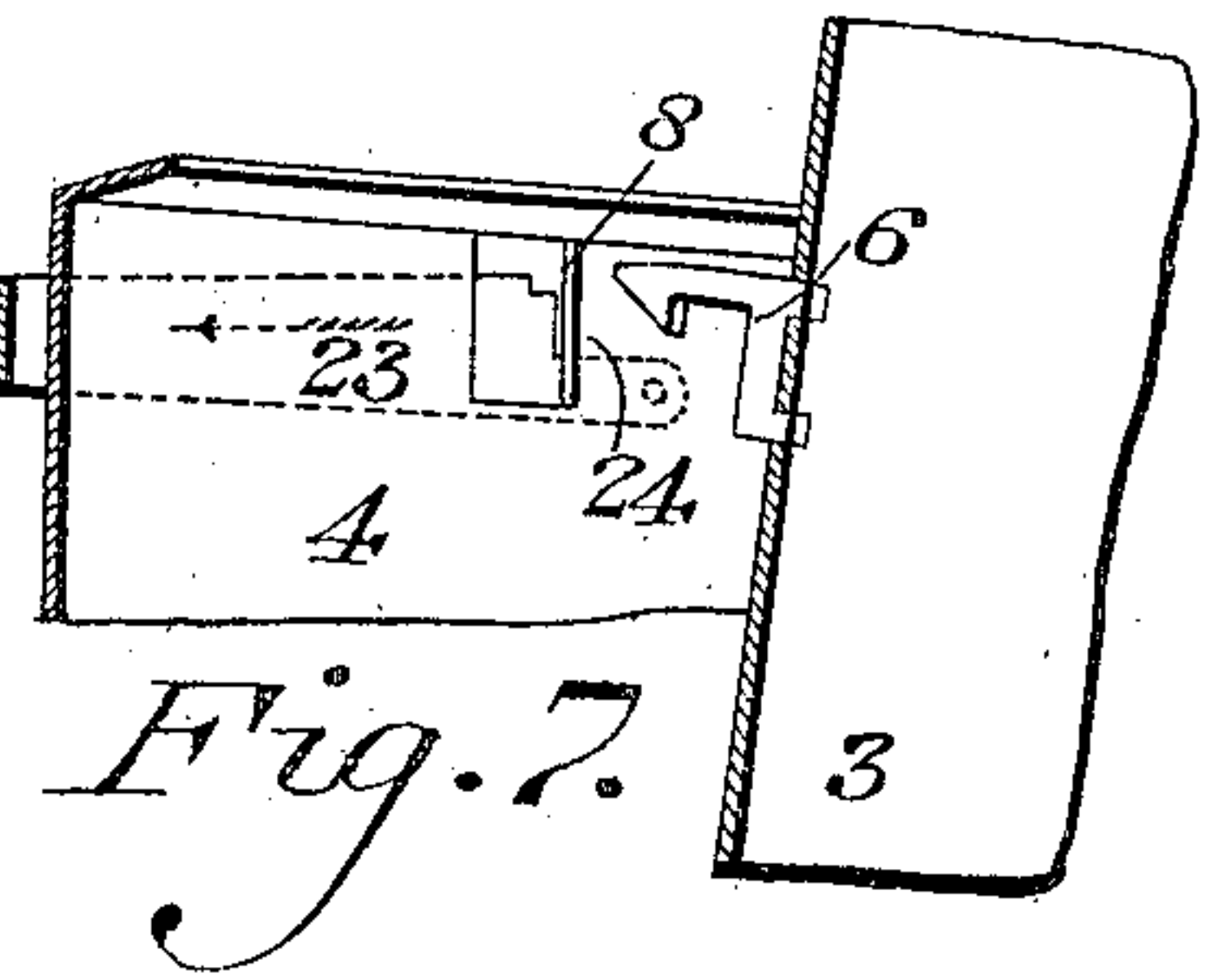
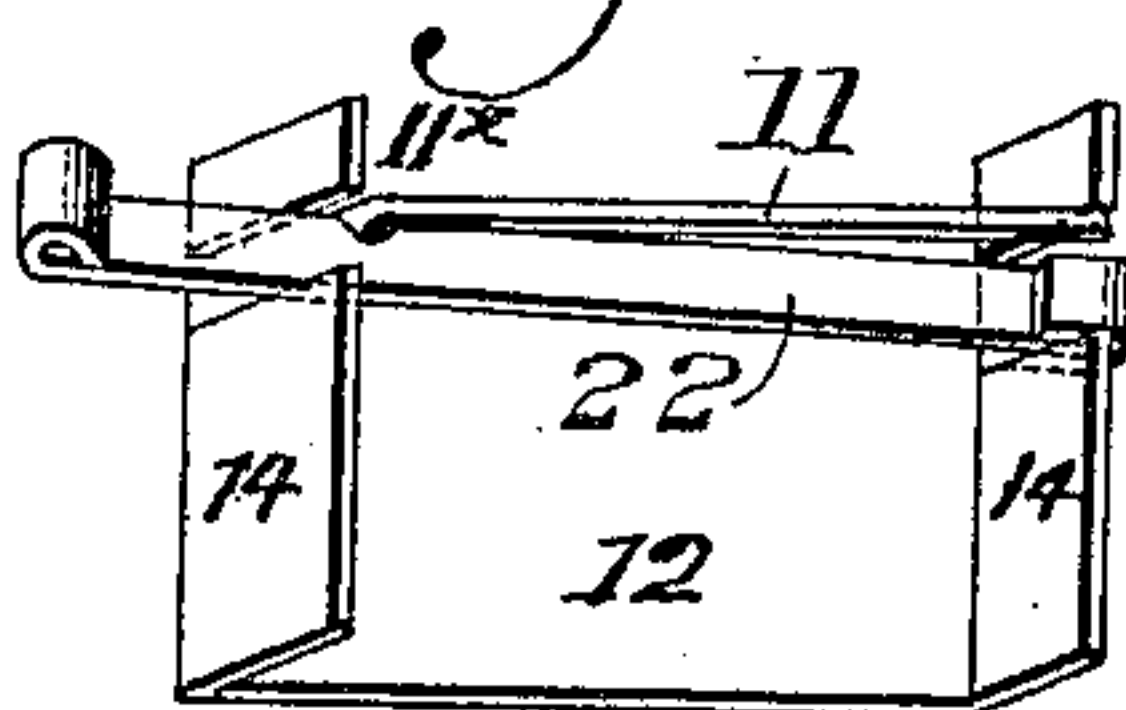
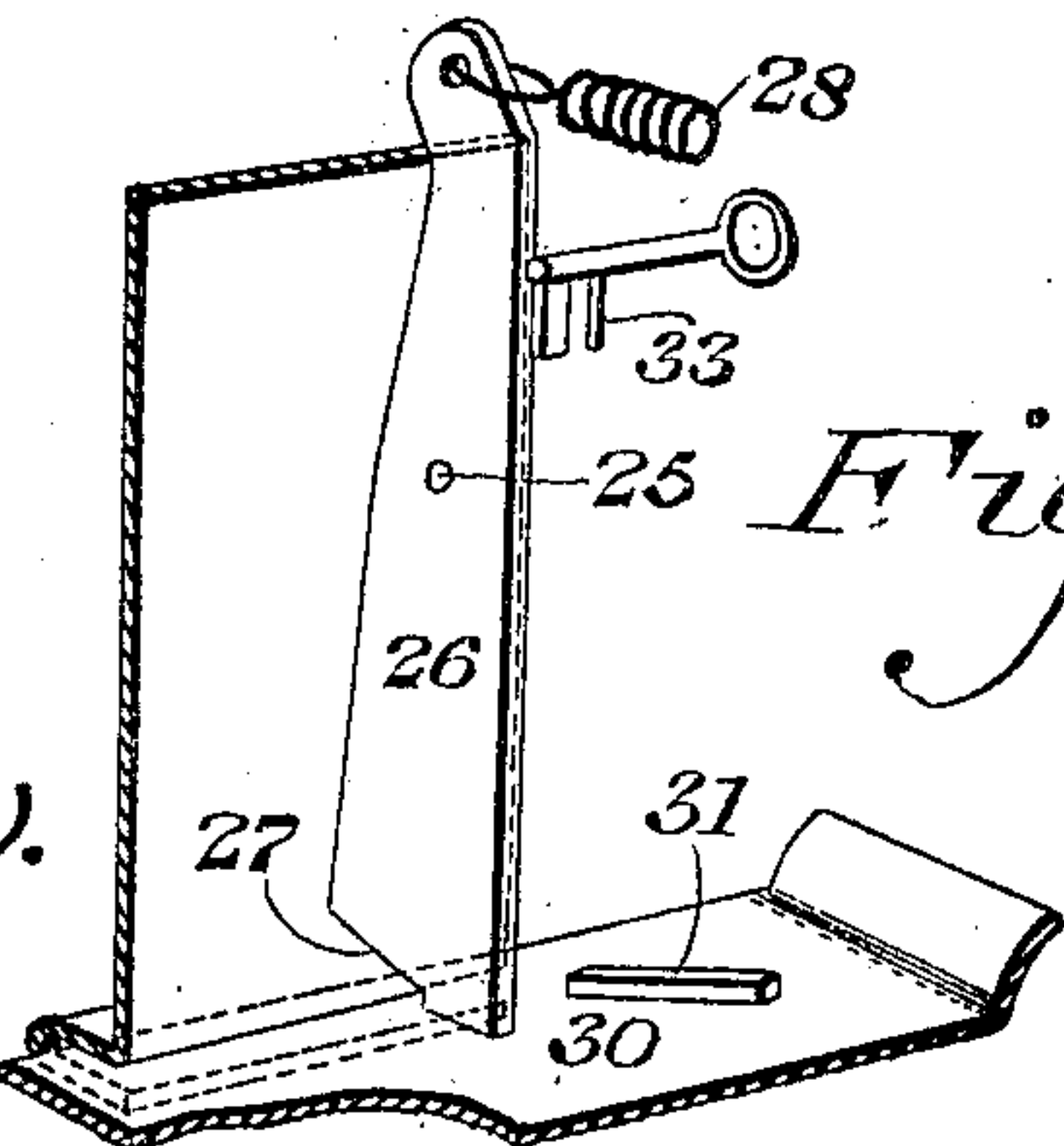


Fig. 7.

Fig. 8.



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3 SHEETS—SHEET 3.

Fig. 9.

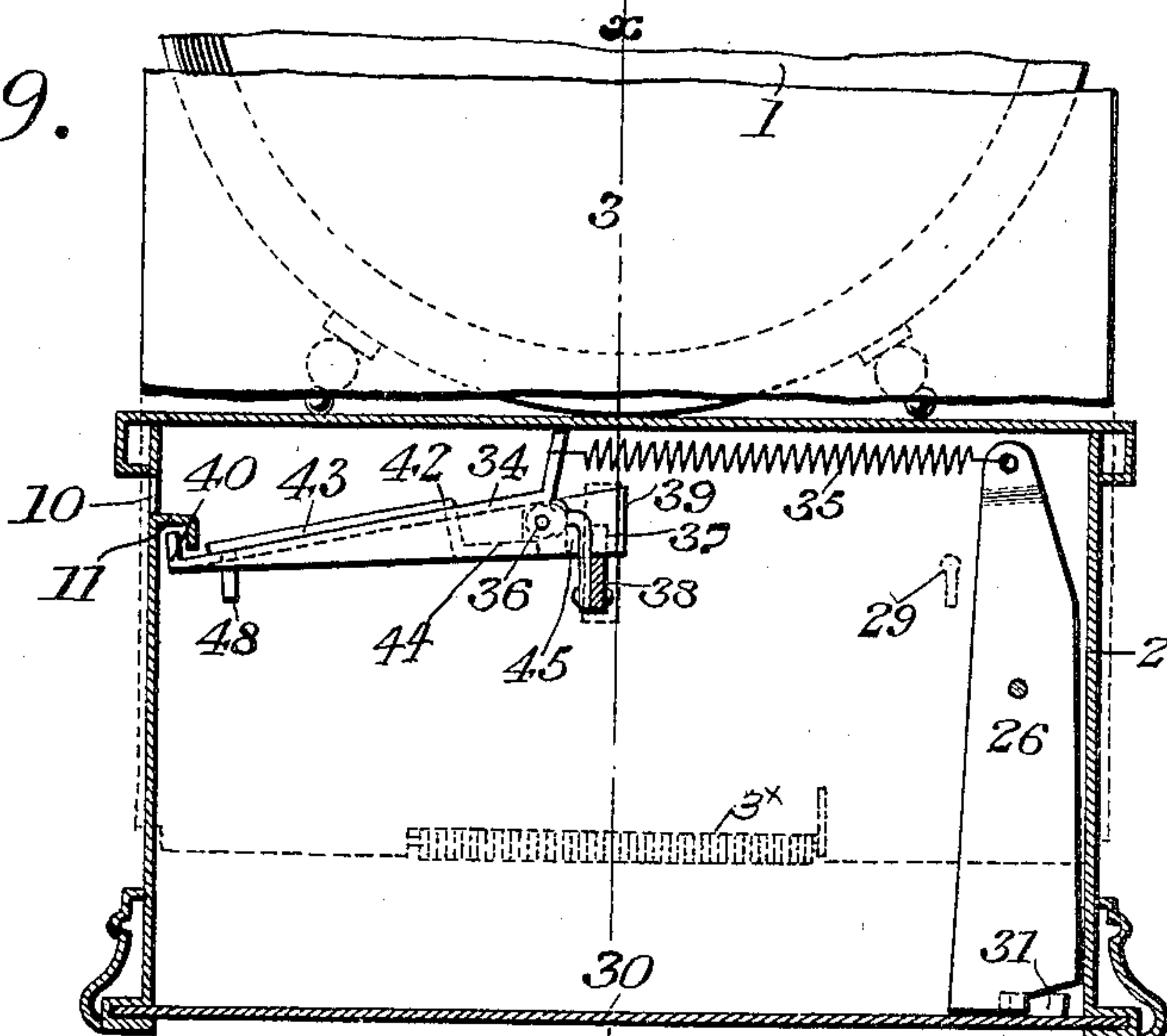


Fig. 12.

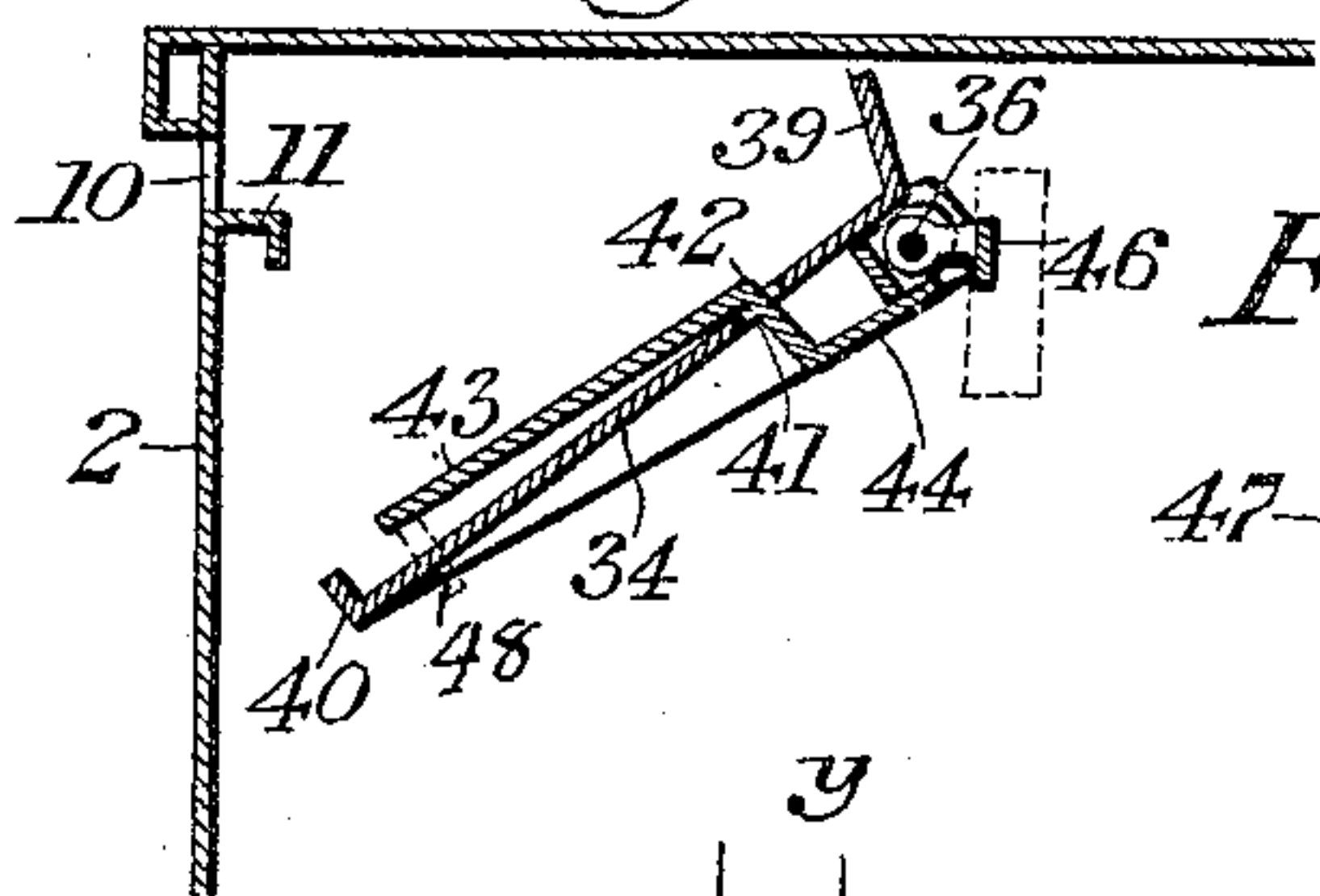


Fig. 13.

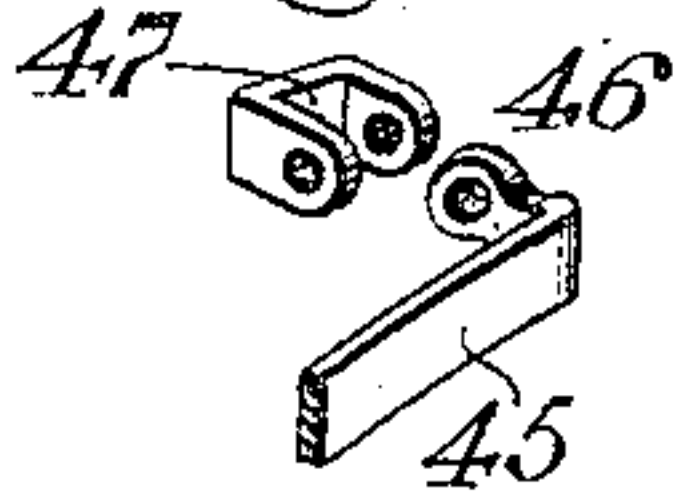


Fig. 11.

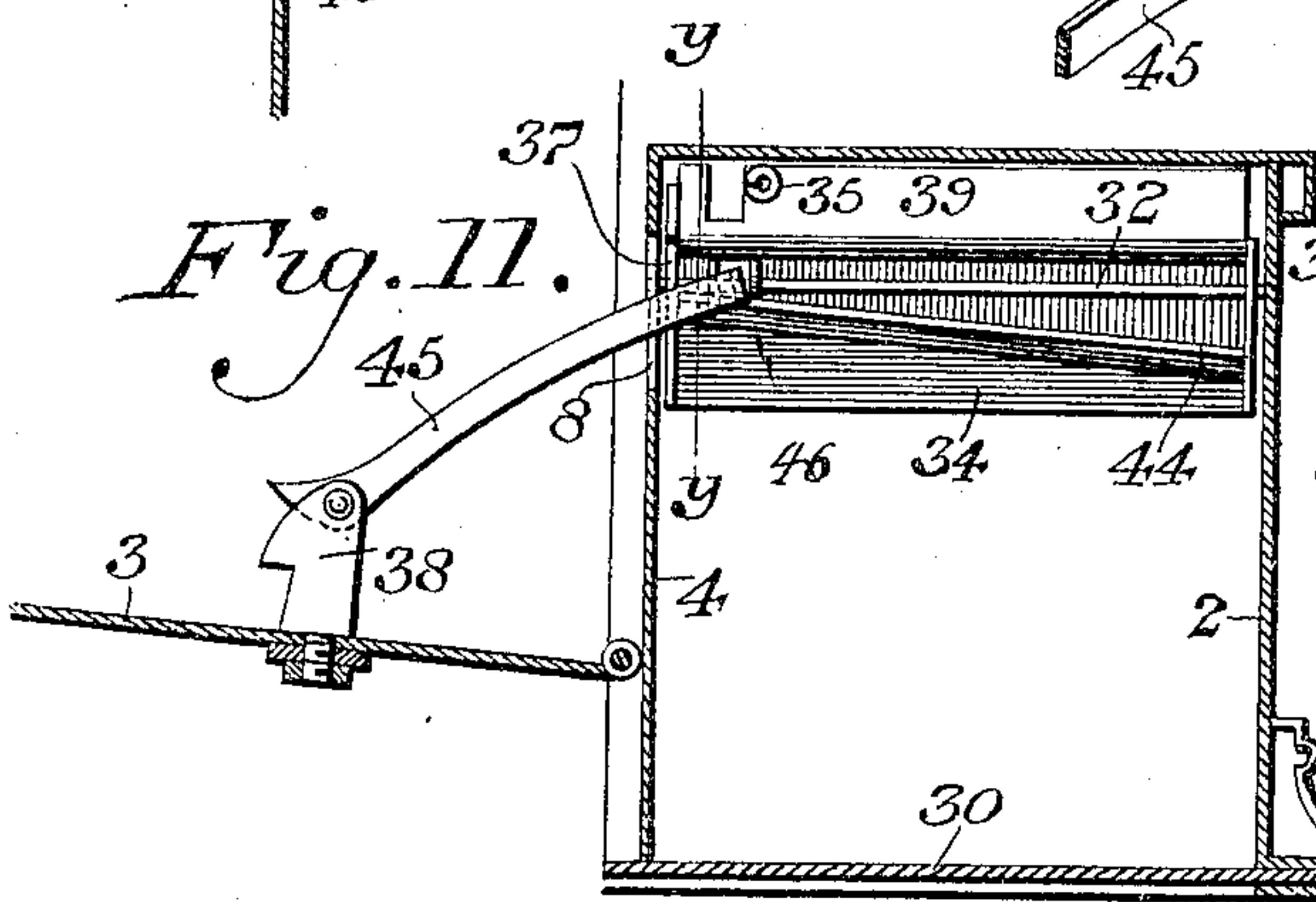
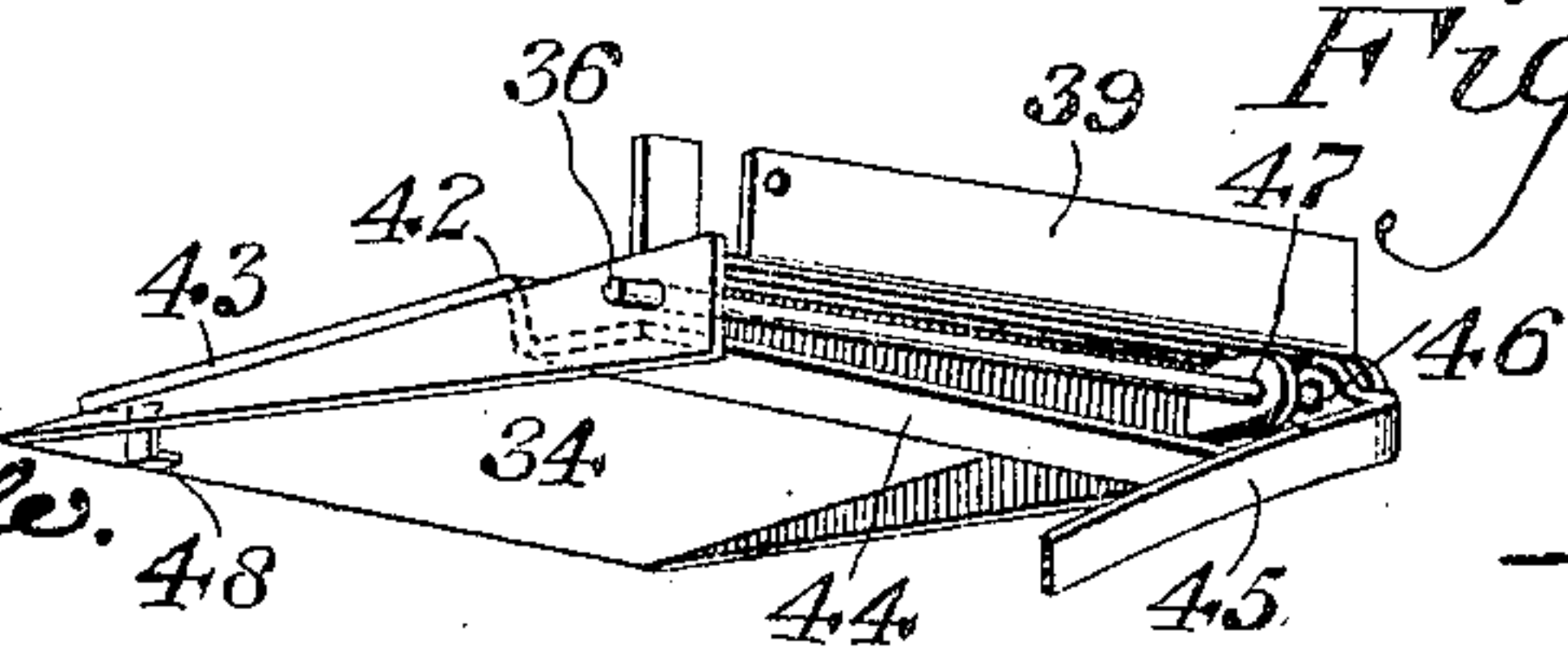


Fig. 14.



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UNITED STATES PATENT OFFICE.

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CLOCK.

No. 822,598.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed July 21, 1903. Serial No. 166,432.

To all whom it may concern:

Be it known that I, EDWIN M. GOLDSMITH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Clocks, of which the following is a specification.

My invention relates to clocks and like articles which require periodical attention, as winding.

It consists of means for blocking access to the winding device releasable by the deposit of a coin.

It also consists of means for preventing access to the coin-receptacle for the removal of the coins therein except on deposit of an additional coin.

It further consists of novel features of construction, all as will be hereinafter set forth.

Figure 1 represents a rear elevation of a coin-controlled clock embodying my invention, a portion being removed. Fig. 2 represents a side elevation of the same. Fig. 3 represents a bottom plan view, the bottom slide being removed. Fig. 4 represents a horizontal section through the lines *ww*, Fig. 1. Fig. 5 is a detail in elevation of the shelf and the spring-bar and its stop. Fig. 6 is a perspective view thereof. Fig. 7 is a detail, partly in section, showing the guard-door and its cooperating devices. Fig. 8 is a similar view showing the lock-lever and its cooperating devices. Fig. 9 represents a partial rear elevation of a modified form of my device, a portion being removed. Figs. 10 and 11 represent the same, partly in side elevation, partly in section, through the line *xx*, Fig. 9, the position of the parts differing in the two figures. Fig. 12 represents a partial section through line *yy*, Fig. 11. Figs. 13 and 14 represent elevations of the tray and correlated parts of the modified device.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to Figs. 1 to 8 of the drawings, 1 designates a clock of ordinary form mounted on a case 2. A guard-door 3, shown as a spring-actuated stiff-metal sheet, is hinged to the rear wall 4 of the case 2 and covers the winding mechanism or key 5 of the clock. A detent 6 and a dog 7 are secured to the inner side of the guard-door 3 and pass through apertures 8 and 9 in the wall 4 of the case 2. At one side of the case 2 is a coin-slot 10, beneath which, within the case, is a shelf 11. Below the shelf is a coin-receiving tray 12, piv-

oted at 13 and preferably having upwardly-extending sides 14. Normally resting on the free edge of the tray 12 is a sweep 15, mounted on a rod 16, shown as having a bent arm 17, pivoted to a lever 18, pivoted at 18^a to some fixed part. The rod 16 is guided and supported in bearings on the plate 16^a, as seen in Figs. 1 and 3. The other end of the lever is pivoted to a rod 19, which passes out of the side of the case 2 and has a knob 20 exterior of the case. A spring 21 on the rod 19 normally holds the parts in the position shown in Figs. 3 and 4. Between the narrow shelf 11 and the tray 12 is a spring-bar 22, attached at one end 22^x to the inner side of the case 2 and having pivoted at its free end a flat rod 23, notched at 24. The forward movement of the bar is checked by a stop shown, Figs. 5 and 6, as a bent corner 11^x of the shelf 11. Pivoted at 25, within the rear wall 4 of the case 2, is a lock-lever 26, having at its lower end a notch 27. To its upper end is connected a spring 28, which is shown as attached to the end of the rod 23, which it serves to support. Adjacent the lever 26 is a keyhole 29 in the rear wall of the case 2. The bottom 30 of the case is rearwardly removable and is provided with an angularly-disposed lug 31. (Clearly shown in Fig. 8.)

The operation is as follows: The parts standing in the position shown in Figs. 1, 3, and 4 of the drawings, the guard-door 3 being locked by the engagement of the detent 6 with the bar 23, and the tray 12 supported in its horizontal position by the lug 7, a coin 32 is passed through the slot 10 and onto the tray 12. By pulling out the knob 20 the sweep 15 is drawn over the tray 12 and forces the coin 32 against the bar 22. This acts to move the rod 23, so that its notch 24 registers with the aperture 8 in the wall 4, thus releasing the detent 6. The guard-door 3 may then be turned on its hinge and access gained to the clock-key 5, by which the clock may be wound. The opening of the door 3 withdraws the dog 7 from beneath the tray 12, which tilts and permits the coin 32 to drop onto the bottom 30 of the case 2. As soon as released the guard-door 3 is returned by its spring 3^x to its vertical position, the dog 7 raises the tray 12 to a horizontal plane, and the detent 6 engages over the bar 23, as before. It is to be understood that the tray never assumes a position where it is not in the path of the inclined face of the dog 7 as

the guard-door 3 is closed except when the guard-door is opened sufficiently to permit of winding of the clock. As the keyhole 29 in the rear wall 4 of the case is also guarded by the door 3, the bottom 30 can only be removed by the insertion of a coin 32 and the movement of sweep 15, as above described. The key 33 may then be inserted and being turned moves the lock-lever 26 out of the path of the lug 31 on the bottom 30. The bottom may be returned to its position at any time, the inclined lug 31 riding on the shoulder on the lever 26 at the side until the lug 31 has passed, when the spring 28 returns the lever to its locking position. The function of the shelf 11 is obviously to prevent the moving of the bar 22 by any improper means.

The form of my device shown in Figs. 9 to 14 of the drawings differs from that above described chiefly in the omission of the sweep and attendant parts by which the coin is used to unlock the guard-door, &c. In the modified construction the coin-receiving tray 34 is normally held in its nearly-horizontal position by a spring 35, shown as connected to the locking-lever 26. The tray is pivoted on a pin 36, passing through the case, and carries a lug 37, adapted to engage with a detent 38 in the guard-door 3. At the rear end of the tray 34 is an upturned flange 39 and at its front or face edge is a lower flange 40.

Passing through a slot 41 on the tray 34 is a plate 42, the body 43 of which rests on the upper surface of the tray, its rear flange 44 being beneath the tray and lying in an inclined plane or at an angle to the body of the plate 42 and also inclined with respect to the pivot-rod 36, as is clearly shown in Figs. 10, 11, and 14. Pivoted to the detent 38 is an arm 45, having at its free end an eye 46, which engages with a slide 47, both the eye and the slide moving freely on the pivot-pin 36. A stop 48, shown as an integral lug on the body 43, limits the movement of the plate 42.

The operation is as follows: The device being in its normal position, as shown in Figs. 9 and 10, a coin inserted through the slot 10 will rest on the plate 42 on the tray 34. It will by its weight depress or tilt the tray and free the lug 37 from the detent 38 on the guard-door 3, the coin being retained on the tray by the flange 40. When the operator opens the door 3, the arm 45 draws forward the slide 47, which bears on the upper side of the flange 44 and acts to raise the plate 43, as shown in Fig. 12. As the slide 47 runs on the pivot-pin 36 of the tray 34, the movement of the plate 43 will be relative to that of the tray, so that the coin will be raised above the flange 40 and permitted to slide off the tray and fall on the bottom 30 of the case 2. It is plain that when the clock is wound and the door 3 released it will be spring-returned to its vertical position, when the arm 45 will

return the slide 47 to its normal position, permitting the plate 43 to again rest on the tray 34, and the detent 38 will again engage the lug 37.

It will be observed that I have not encumbered my device with elaborate means for rejecting a particular coin. The "clock," in which term I include any like timepiece, is intended as a sort of savings-bank to encourage thrift in its owner. If, as preferred, the clock has a "one-day" movement, he must daily deposit a coin, the value of which is ordinarily left to his own discretion. It is clear, however, that the denomination of the required coin may be determined in several ways. Thus in the form of my device first described the rod 16 may be shortened as to require a coin of a certain diameter, as a "nickel" or "quarter," to reach from the sweep 15 to the bar 22. In the second form the spring 35 may be stiff enough to require a relatively heavy coin to tilt the tray 34. In either form the slot may be made to admit only a dime, rejecting a cent or nickel.

It will also be noted that the coin-receptacle can only be opened by a key, which may of course be in the possession of another than the owner of the clock. In any case it requires that the owner have at least one coin or disk to release the guard-door for unlocking the sliding bottom.

It will be evident that various changes may be made by those skilled in the art which will come within the scope of my invention, and I do not, therefore, desire to be limited to the exact construction herein shown and described. Thus instead of the guard-door shown and described it is evident that other forms of obstruction with the mechanism for winding the clock would be within the purview of my invention and that the relative positions of the clock and the coin-receiver may be varied.

As some of the specific features of construction herein described are applicable to other coin-controlled devices, I wish to be understood as including in the term "case" when used in the claims not merely the case of a clock 1 shown, but any receptacle to which access is desired, whether for the purpose of removing an article therefrom or for any like purpose, and by the term "access to said case" or equivalent phrase I purpose to include such constructive access thereto as is implied in the delivery of any article therefrom.

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

1. A clock, a coin-receiver permanently secured to said clock and having a closed coin-exit aperture therefor, a guard movably secured to said coin-receiver and normally obstructing access to the winding mechanism of said clock and to the locking

means of said closure of said exit-aperture locking means for said closure, and coin-controlled means in said receiver for releasing said guard.

5 2. A clock, a coin-receiver permanently secured to said clock and having a closed coin-exit aperture closure therefor, a guard movably secured to said coin-receiver and normally obstructing access to the winding
10 mechanism of said clock and to the locking means of said closure of said exit-aperture, locking means for said closure, coin-controlled means in said receiver for releasing said guard and automatic means for return-
15 ing said guard to its normal position.

3. A clock, a coin-receiver permanently secured to said clock and having a closed coin-exit aperture closure therefor, means for releasing such closure, a guard movably
20 secured to said coin-receiver and normally obstructing access to the winding mechanism of said clock and to the releasing means of said closure of said exit-aperture and coin-controlled means in said receiver for releasing
25 said guard.

4. A clock, a coin-receiver permanently secured to said clock and having a coin-exit aperture, a key-controlled closure for said aperture, a guard movably secured to said
30 coin-receiver and normally obstructing access to the winding mechanism of said clock and preventing the insertion of the key and coin-controlled means in said receiver for releasing said guard.

35 5. In a coin-controlled clock, a stand, a

guard on said stand, a coin-receiving tray in said stand mounted to be tilted when a coin is placed thereon, means connected with said tray for engaging said guard and means connected with said guard for discharging a
40 coin from said tray.

6. In a coin-controlled clock, a stand, a guard-door on said stand, a coin-receiving tray in said stand mounted to be tilted when a coin is placed thereon, means connected
45 with said tray for engaging said door and means connected with said door for discharging a coin from said tray.

7. A coin-controlled device comprising a case, a coin-receiver secured to said case, a
50 tilting coin-receiving tray in said receiver, a guard, a detent on said guard and projecting into said case beneath said tray to support the tray and coin-controlled means for releasing said guard whereby said tray is
55 moved to remove the coin therefrom.

8. A coin-controlled device comprising a clock, a case, a coin-receiver secured to said case and having a closed coin-exit aperture, a closure therefor a movable coin-receiving
60 tray in said receiver, a coin-controlled guard normally obstructing access to said case and to the locking means of said closure of such exit-aperture and supporting said tray and coin-controlled means for releasing
65 said guard.

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