

(No Model.)

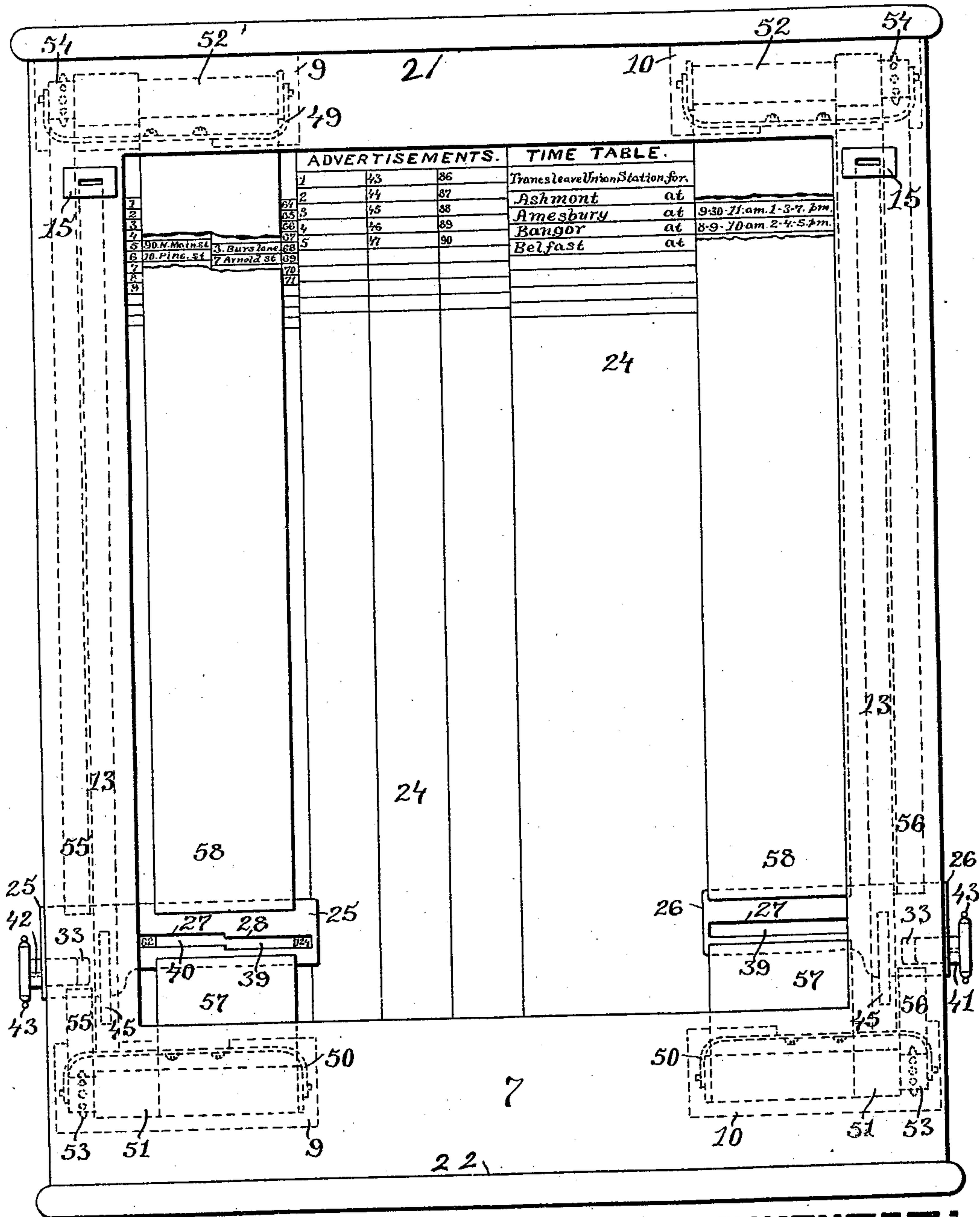
2 Sheets—Sheet 1.

H. A. MANLEY.
COIN CONTROLLED MECHANISM.

No. 545,634.

Patented Sept. 3, 1895.

Fig. 1.



WITNESSES:

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INVENTOR:

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

Fig. 3.

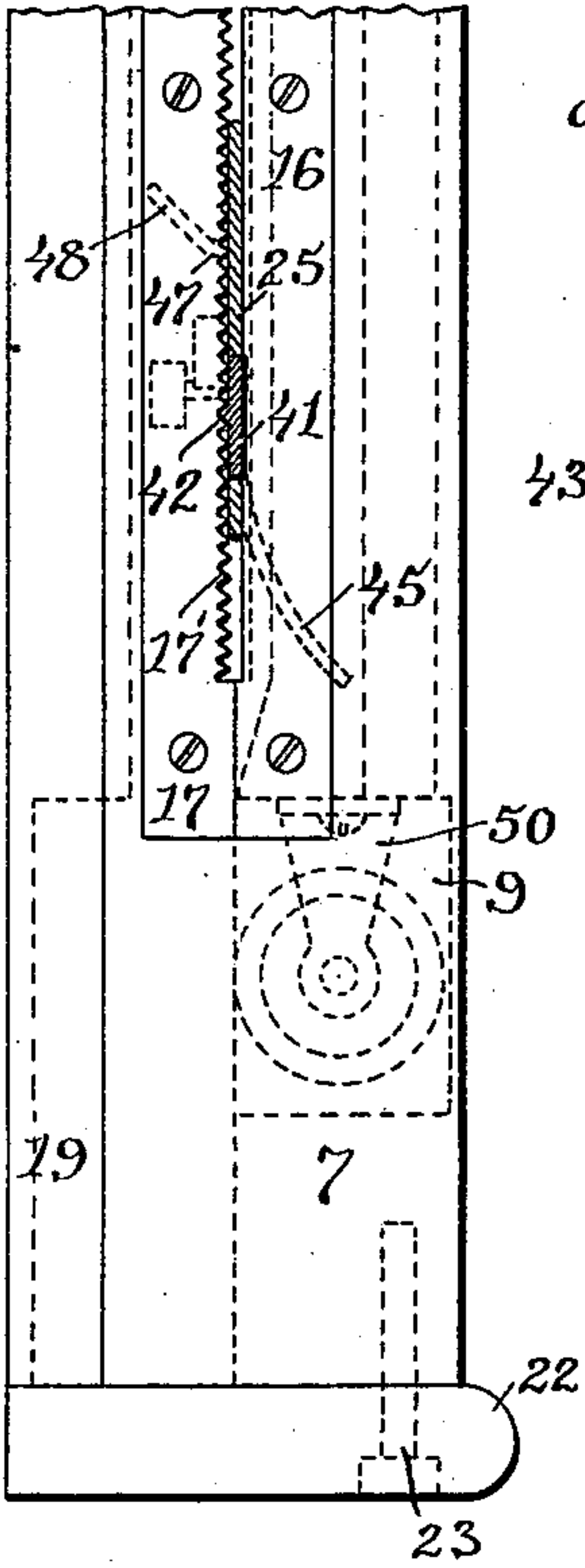
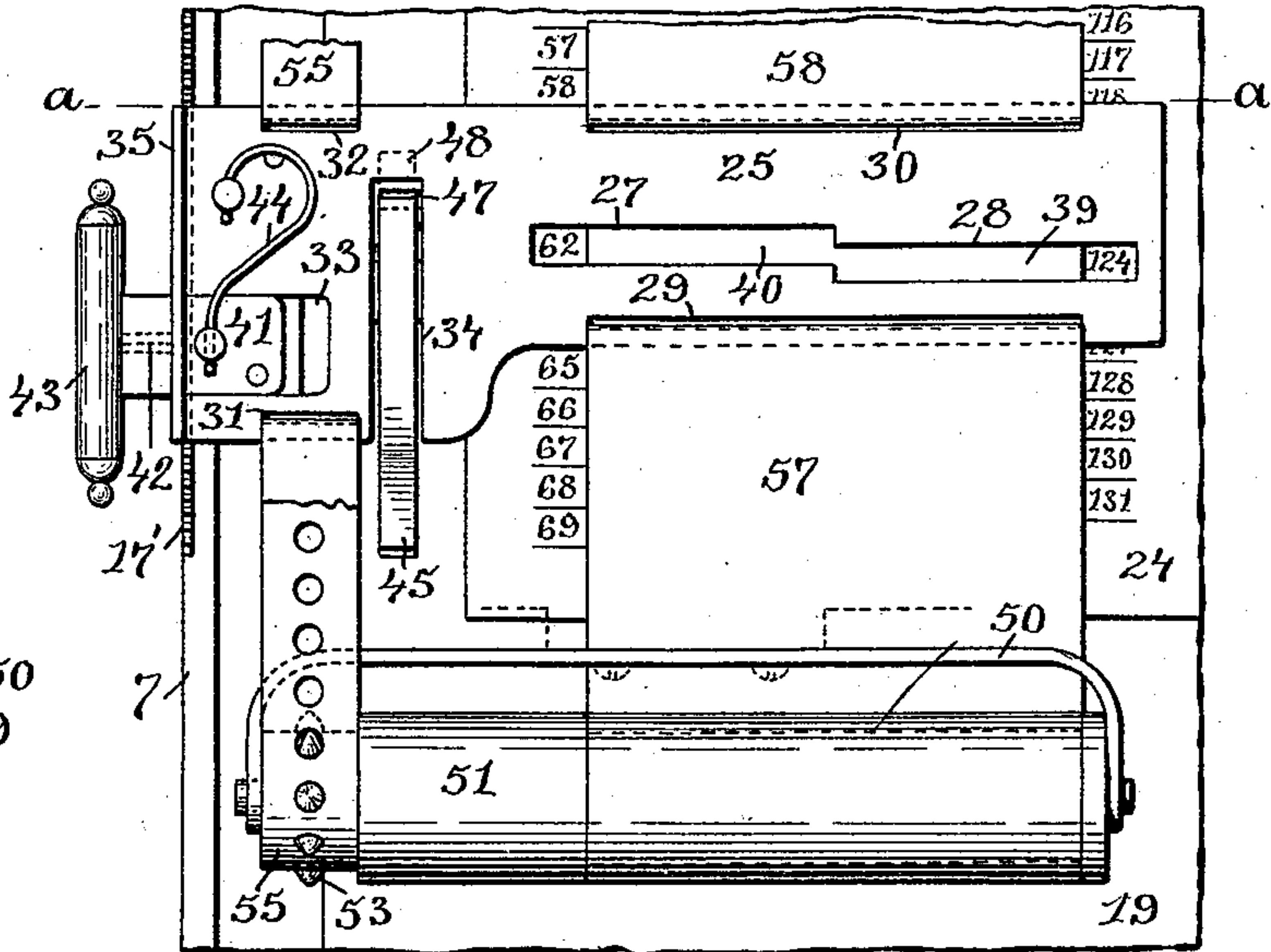
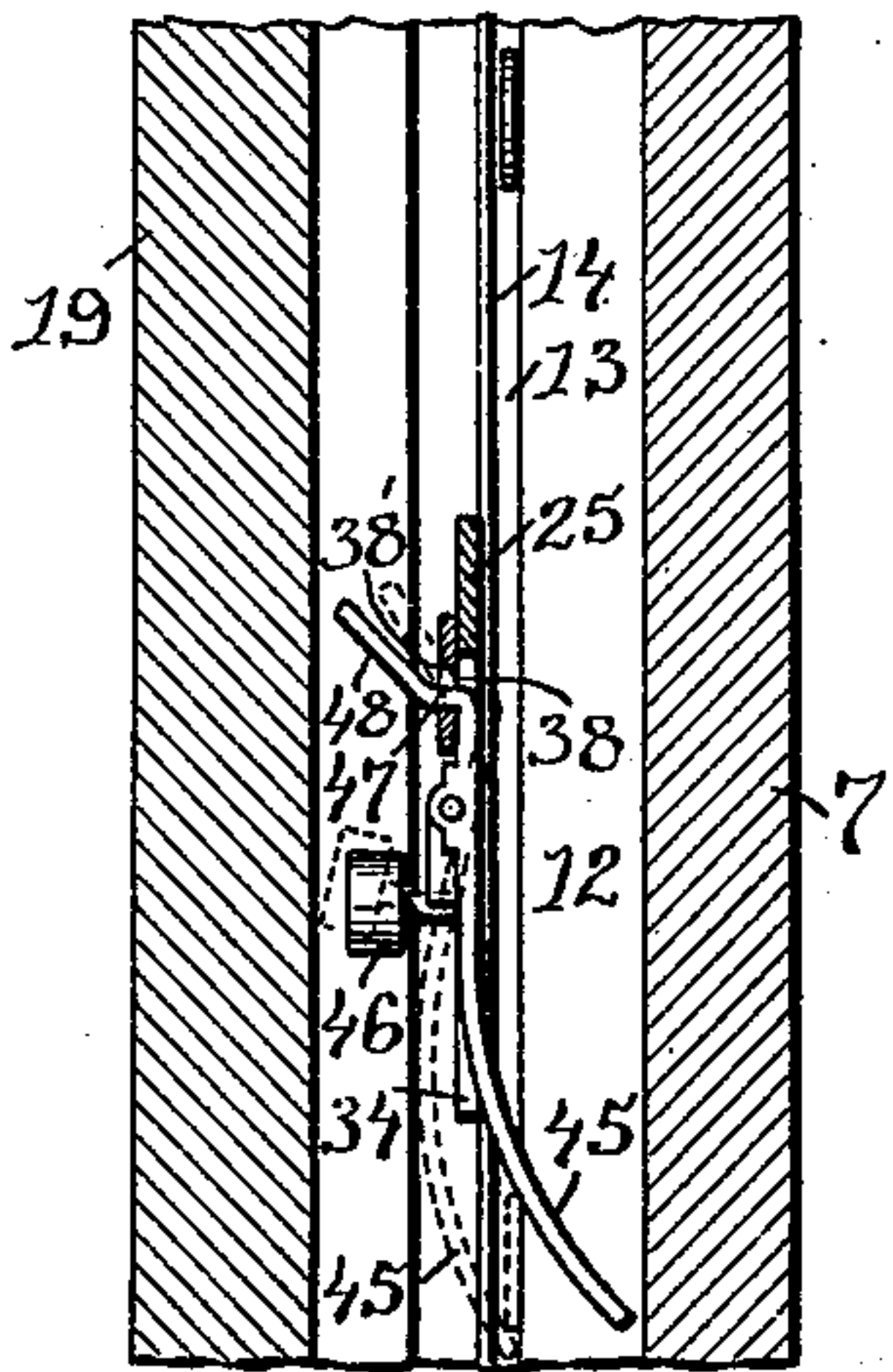


Fig. 5.



III. 4.

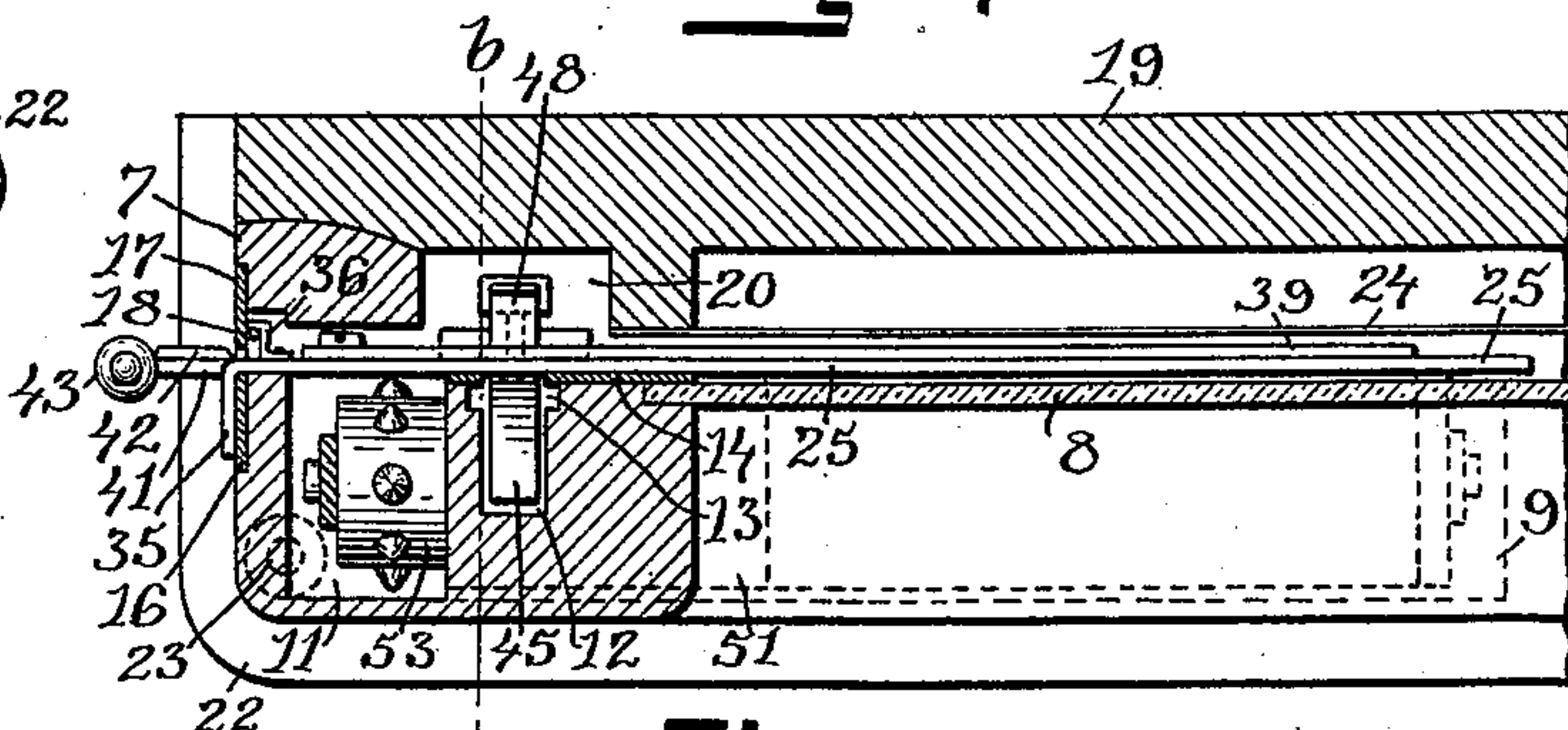
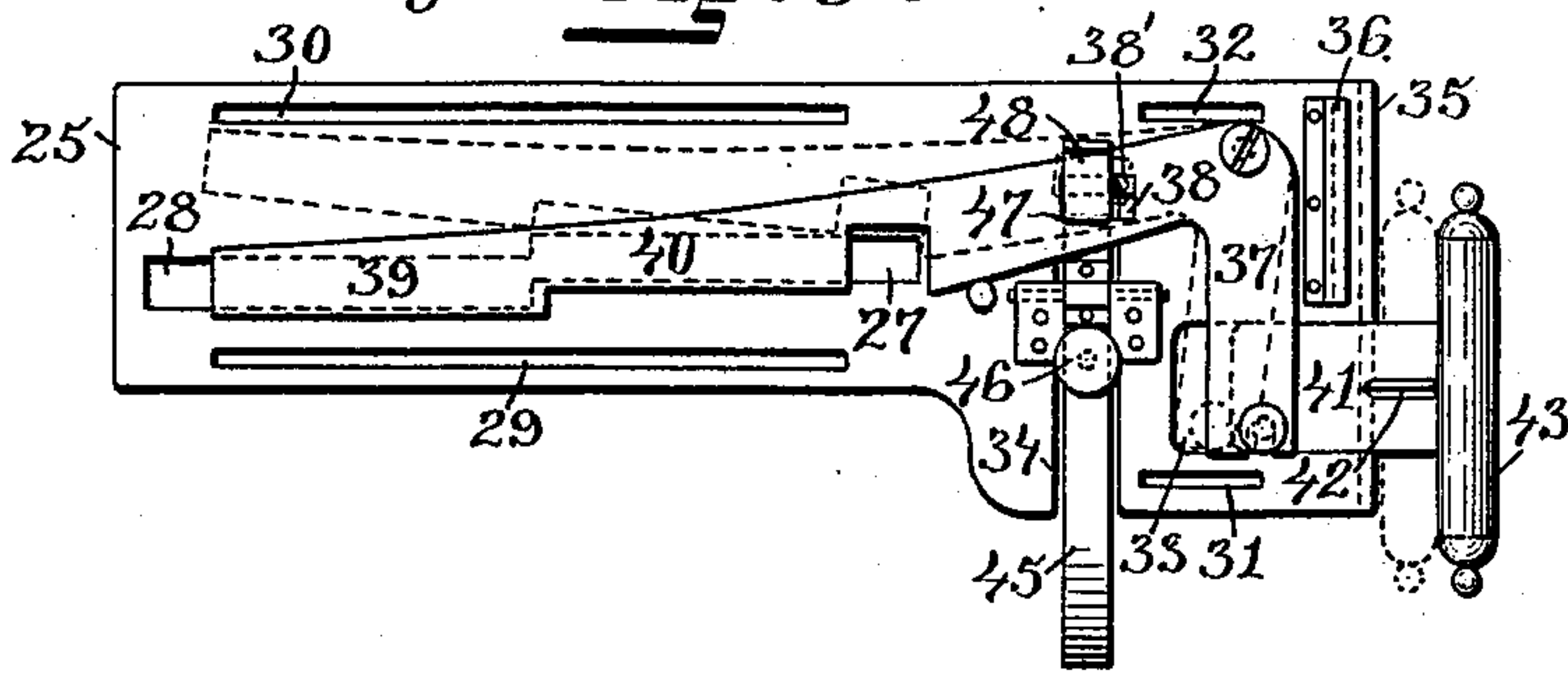


Fig. 6.



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UNITED STATES PATENT OFFICE.

HORACE A. MANLEY, OF BOSTON, ASSIGNOR TO WILLIAM N. OSGOOD, OF
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COIN-CONTROLLED MECHANISM.

SPECIFICATION forming part of Letters Patent No. 545,634, dated September 3, 1895.

Application filed October 29, 1894. Serial No. 527,397. (No model.)

To all whom it may concern:

Be it known that I, HORACE A. MANLEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Coin-Controlled Mechanisms; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in machines in which the operating mechanism may be unlocked for the purpose of operation by means of a coin or its equivalent.

The object of the invention is to so construct a machine of this nature that it is more particularly adapted for the uses of an information machine than those heretofore constructed.

Another object of the invention is to so construct a visual machine of this nature that the device through which the information or other matter may be viewed is movable with reference to such matter.

Another object of the invention is to so construct a coin-operated mechanism that while the device in which the viewing-slot is formed is movable over the matter to be disclosed by the opening of said slot means are provided for hiding the remainder of such matter or objects from view.

Another object of the invention is to so construct a coin-operated mechanism that the operating mechanism adapted to be released by the weight of a coin can be moved without disclosing the matter or objects supported behind the same.

Another object of the invention is to so construct a device of this nature that the movable operating mechanism may be automatically locked against movement during its operation.

Another object of the invention is to so construct a coin-operated machine in the nature of an information device that the questions and answers may be printed on one piece of material and so used in the machine.

The invention consists in the combination, with a suitable case, of a device in which a viewing-opening is formed traversably

mounted in the case together with means extending from the case for traversing the same and a shutter adapted to close said opening.

The invention also consists in the combination, with a series of questions and answers, of a coin-operated mechanism traversably mounted over said answers and having an opening through which the same may be viewed and a shutter for closing the opening.

The invention also consists in the combination, with the case and the series of answers therein, of the disclosing device and a belt extending from the disclosing device adapted to cover the answers not covered by such device.

The invention also consists in the peculiar construction of the coin-controlled mechanism, the manner in which the same is mounted, and in the means for automatically locking the same from movement while under operation.

The invention also consists in the peculiar coin-controlled mechanism, the belts for hiding the answers, and in the means for operating these belts.

The invention still further consists in the peculiar locking mechanism whereby, when in position to prevent the opening of the shutter, it is not subjected to frictional strain from the part with which it locks, and is extremely sensitive to the action of the coin to release the shutter-operating mechanism without allowing the coin to pass.

The invention also consists in such other novel features of construction and combination of parts as may hereinafter be more fully described, and pointed out in the claims.

Figure 1 represents a front elevation of the improved machine in its duplex form, portions of the belts being broken away to show the answers behind the same. Fig. 2 represents an enlarged end view of portions of the same, partly in section. Fig. 3 represents an enlarged face view of portions of the machine with the front or cover removed. Fig. 4 represents a cross-sectional view taken on a line *a a*, Fig. 3. Fig. 5 represents a vertical sectional view taken on a line *b b*, Fig. 4, showing the coin-lever in two positions. Fig. 6 represents a view of the coin-controlled

mechanism removed from the machine, the shutter and its operating mechanism being shown in the closed position in full lines, their respective locations in the open positions being indicated in broken lines.

Similar numbers of reference designate corresponding parts throughout.

In carrying my invention into practice I construct a box or case having the front 10 formed of a frame 7, furnished with a glass 8, and having recesses 9 9 and 10 10, each pair of which is connected by a vertical recess 11 11. In the back surfaces of the frame and parallel with the recesses 11 11 are the 15 grooves 12 12, the outer rear portions of which are widened to form coin-chutes 13 13, which are partially covered by slotted plates, as 14, and are connected at the upper ends with coin-slots 15 15, and at their lower ends with 20 any suitable coin-receptacle. The side frames of the front have vertical slots, which are protected by the strips 16 and 17, the strips 17 having a serrated edge 17', and on its back a longitudinally-extending rib 18. The back 25 19 of the case has vertical recesses, as 20, and is furnished with a top 21 and a bottom 22, between which the front is pivotally secured by bolts, as 23.

In the case is mounted a card 24, having a 30 series of advertisements, questions, &c., printed on its central portion and answers or addresses of the advertisers printed at the sides. Where more than a single column of answers is necessary I so arrange them that the horizontal center of one space will lie opposite 35 the lower and upper edges of the adjoining spaces in the next column, as is shown at the left-hand side of Fig. 1. Where a single column of questions and a corresponding column of answers is used, as is shown at the 40 right-hand side of Fig. 1, the spaces for the answers are preferably opposite those of the questions. In the drawings a duplex machine is shown, but it is obvious that both sides of 45 the card may correspond, or that with proper arrangements of the apparatus a machine with but one series of questions and answers may be used.

Vertically movable in the slot between the 50 strips 16 and 17 of each side of the front is a plate 25 or 26, which carries the coin-controlled mechanism, the construction of which is similar on both plates, except that that carried by the plate 25 is adapted for a double 55 column, while that of the plate 26 is designed for use over a single column. For the present purpose the construction of the plate 25 and its mechanism will be sufficient. This plate extends inwardly over the face of the 60 card 24 sufficiently to cover the columns of addresses having slots 27 and 28, through the opposite ends of which the numbers of the advertisements may be seen. This plate 25 has also the slots 29 and 30 and 31 and 32 65 and an opening 33, the edges of which form guides. Between this opening and the name-slots is a vertical slot 34, the lower end of

which is open. The outer end of the plate is bent at right angles with the main body to form the bearing-flange 35, and adjacent to 70 this lip, on the opposite side of the plate 25, is secured the L-shaped lip 36, which engages the rib 18 on the plate 17 and slides thereon. On the back of the plate 25 is pivoted the shutter-arm 37, having the slot 38' and the 75 shutters 39 and 40, of a length to close the slots 27 and 28, except at their end portions, through which the members of the addresses, &c., may be viewed at all times. To the lower bent end of the shutter-arm is pivoted the 80 plate 41, reciprocally mounted between the edges of the opening 33 and having the horizontal knife-bolt 42 and the operating-grip 43. To this plate 41 and to the plate 25 is secured the spring 44, which tends to throw 85 the plate 41 outward and to hold the shutters in the depressed position. In the slot 34 is pivoted the bent coin-lever 45, extending into the groove 12, having a counterweight 46 and a locking-shoulder 47, above which is the inclined end 48. The locking-shoulder extends 90 through the slot 38 in the shutter-arm, and when in its normal position prevents the upward movement of the shutter-arm by resting against the lower edge of said slot. 95

In the recesses 9 9 and 10 10 are secured the elliptic springs 49 and 50, between the ends of which the rollers 51 and 52 are journaled. At the outer ends of these rollers are sprockets 53 and 54, and with these sprockets are 100 engaged sprocket-belts 55 and 56, the ends of which are secured in the slots 31 and 32 of the respective plates 25 at the sides of the machine, so that by the traversing of the plates 25 the rollers are caused to rotate. To the 105 main portions of these rollers are secured the ends of the belts 57 and 58, the opposite ends of which are secured in the slots 29 and 30 of the respective plates 25. Thus the traversing of the plate 25 upward will cause the rollers, 110 through the sprocket-belts, to rotate to take up the belt 57, while the belt 58 is let out from its roller. These belts being as wide as the column or columns of answers will hide the same from view above and below the 115 plates 25.

To operate the machine, the grip 43 is traversed upward or downward, as is necessary to bring the number of the address or answer in view through the address-slot where the left- 120 hand side of the machine is to be used, or to bring this slot opposite the question, as on the right side of the machine. In doing this the rollers 51 and 52 are rotated by means of the trolley-belt to take up one of the belts 57 or 58 125 while letting out the other belt. As either of these last-mentioned belts is wound on its roller it will increase the diameter of the same, and to allow for this the rollers are mounted in the springs so that these will give to the 130 strain.

When the coin-controlled mechanism has been shifted to the proper location, a coin is dropped into the coin-slot 15, and, passing

down through the coin-chute 13, rests on the bent end of the coin-lever 45, which extends through the chute and enters the groove 12 beyond. The weight of the coin on the lever 5 depresses the lower end of the same, and the upper inclined end acting at the same time moves toward the inclined upper edge of the slot 38 in the shutter-arms, thus freeing the arms from the shoulders 47 of the lever, the 10 lever thus assuming the position shown in dotted lines in Fig. 5 of the drawings and still holding the coin from dropping, as the inclined end of the coin-lever bearing against the inclined upper edge 38' of the slot 38 in the shutter-arm prevents further movement. 15 The grip 43 is now pushed inward, the first result being to engage the knife-bolt 42 between two of the serrations or teeth on the strip 17, thus preventing the traversing of the mechanism in the vertical direction. As 20 the plate 41 moves inward the shutter-arm 37 pivoted thereto will be thrown upward and the shutter or shutters will be raised, disclosing the address or other matter hidden behind the same. The inclined end 48 of the 25 coin-lever will now be allowed to move farther inward until the coin is released. The lever then swings back, and when the grip is released and the plate 41 is pushed into its 30 normal position, after note has been made of the address, the shoulder 47 again engages the lower edge of the slot 38 in the shutter-lever and locks the same.

By the use of the knife-bolt 42, engaging 35 the serrated edge of the strip 17, the moving of the coin-controlled mechanism over the columns of addresses is prevented while the shutter is raised, and when this locking mechanism is released sufficiently to allow the 40 moving of the device over said addresses the coin-lever operates to lock the shutter and can be actuated only by the introduction of another coin. The lip 36, bearing on the rib 18 of the serrated strip 17, prevents the spreading of the parts to disengage the knife-bolt 45 from its serrations.

It is obvious that any other suitable belts may be used in place of those herein shown and that the plates 25 may be furnished with 50 one or two name-slots, as is shown in Fig. 1 of the drawings.

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

55 1. In a coin controlled machine, the combination with means for supporting matter to be viewed, of a plate movable before such matter and having a viewing slot, and a coin controlled mechanism mounted on said plate and 60 including a coin lever and a shutter cooperating with the lever and adapted to close the viewing slot.

2. In a coin controlled mechanism the combination with means for supporting matter 65 to be viewed, of a shield mounted to move before such matter, a traversable coin controlled mechanism connected with the shield,

and means for locking the mechanism and shield in position.

3. In a coin-controlled machine, the combination with a plate traversably mounted therein and having a viewing slot, of a shutter 70 pivoted on said plate, and a coin-controlled lever cooperating with the shutter to lock the same against operation. 75

4. In a coin-controlled machine, the combination with a case containing matter to be viewed, a plate traversably mounted before said matter and furnished with a viewing slot, and a shutter for closing the slot, of 80 shields connected with the plate for hiding that portion of the matter not covered by the traversable plate.

5. In a coin-controlled machine, the combination with a case, and a plate traversably 85 mounted therein and furnished with a viewing slot, of a shutter for closing the slot, a device for operating the shutter, and means for automatically locking the plate in position 90 when the shutter is operated.

6. In a coin-controlled machine, the combination with a case, a plate traversably mounted therein and furnished with a slot, and a shutter pivoted to the plate and adapted to 95 close the slot, of a coin-lever pivoted to said plate and adapted to lock the shutter, a device for operating the shutter when unlocked, and means for automatically locking the 100 plate in position when the shutter is operated.

7. In a coin-controlled machine, the combination with a case, a plate traversably mounted therein and having a slot, a shutter pivoted to said plate and adapted to close the 105 slot, of a device reciprocally mounted on the plate to which a portion of the shutter is pivoted, and a coin-lever adapted to engage the shutter to lock the same.

8. In a coin-controlled machine, the combination with a case, and a toothed rack secured thereto, of a plate traversably mounted over 110 the rack and having an opening, a shutter pivoted to the plate for closing the opening, a second plate reciprocally mounted on the first plate and pivoted to the shutter, and means carried by the reciprocal plate for engaging 115 the rack.

9. In a coin-controlled machine, the combination with a case containing matter to be viewed, a plate traversably mounted in the case before such matter and having an opening 120 through which such matter may be viewed, and a shutter for closing the opening, of belts in the nature of shields secured to said plate, rollers on which these belts may be wound, and means connected with said 125 plate for actuating the rollers during the reciprocation of the plate.

10. In a coin-controlled machine, the combination with a case, and a serrated strip secured thereto and having a longitudinal rib, 130 of a plate traversable in the case over said rack and having a slot, an L-shaped lip secured to the plate and adapted to traverse along the rib of the serrated strip, a shutter

pivoted to said plate for closing the slot, a second plate reciprocally mounted on the first plate being pivotally connected with the shutter and carrying a locking bolt adapted to be engaged between the serrations of the strip.

11. The combination with a case provided with the front 7, the vertical side-frame of which has the groove 12, the coin-chute 13 and a lateral vertical side slot, the strips 16 and 17 secured along the side slot, and the plate 14 secured over the coin-chute, of the plate 25 extending through the side slot having a name opening, a vertical lever-slot 34 and the horizontal opening 33, a shutter arm pivoted on said plate having the opening 38 with the upper inclined edge 38' and a shutter, the coin-lever 45 pivoted to swing in the lever opening extending through the coin-chute and having the shoulder 47 and the inclined end 48 adapted to extend through the opening 38 of the shutter-arm, and the plate 41 reciprocal in the opening 33 and pivoted

to the shutter-arm, having the knife-bolt 42 for engaging between the serrations of the plate 17, and the grip 43 for operating and traversing the whole, as described.

12. In a coin-controlled machine, the combination with a case, spring bearings secured at the upper and lower portions thereof, the rollers 51 and 52 journaled in the bearings and having the sprockets 53 and 54, belts secured to the main bodies of said rollers, and a sprocket-belt engaging the sprockets, of a plate as 25 traversably mounted in the case between the rollers to which the ends of the respective belts are secured, said plate having a name slot, and a coin-controlled shutter mechanism mounted on the plate.

In witness whereof I have hereunto set my hand.

HORACE A. MANLEY.

Witnesses:

EDWARD COLLINS,
JOHN P. McKENNA.