

(No Model.)

2 Sheets—Sheet 1.

J. R. FARMER.
COIN CONTROLLED APPARATUS.

No. 509,845.

Patented Nov. 28, 1893.

Fig. I

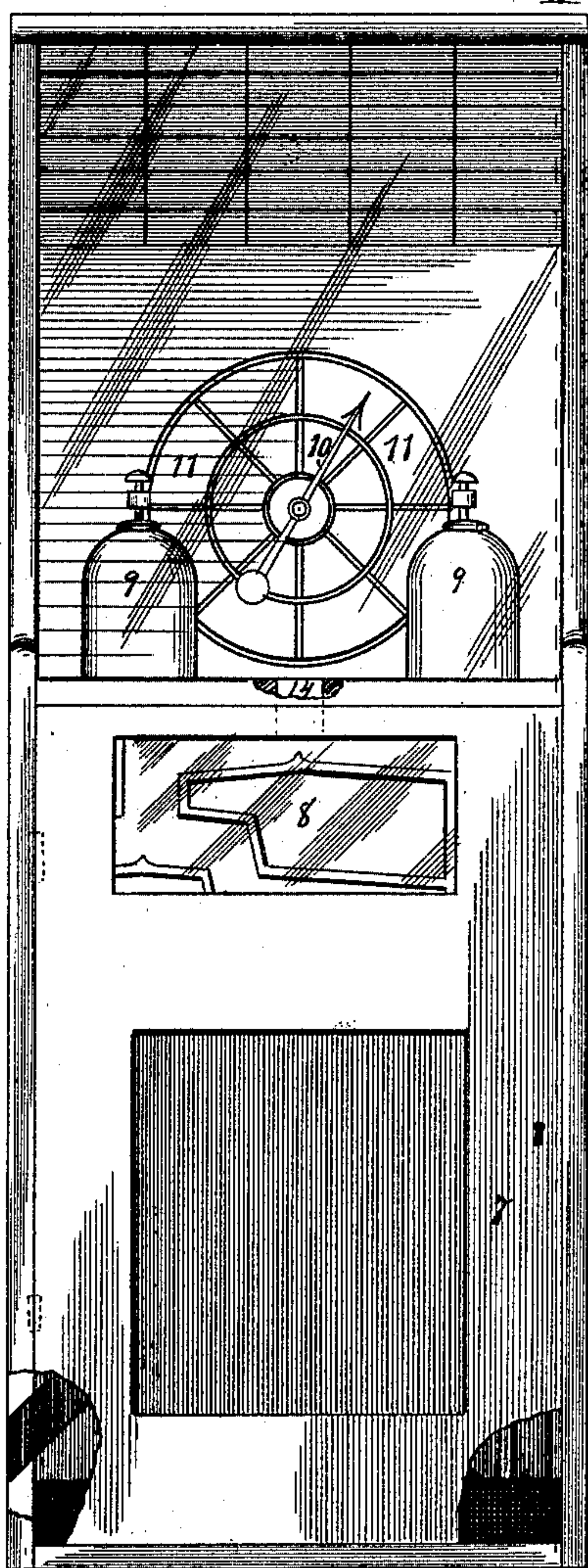
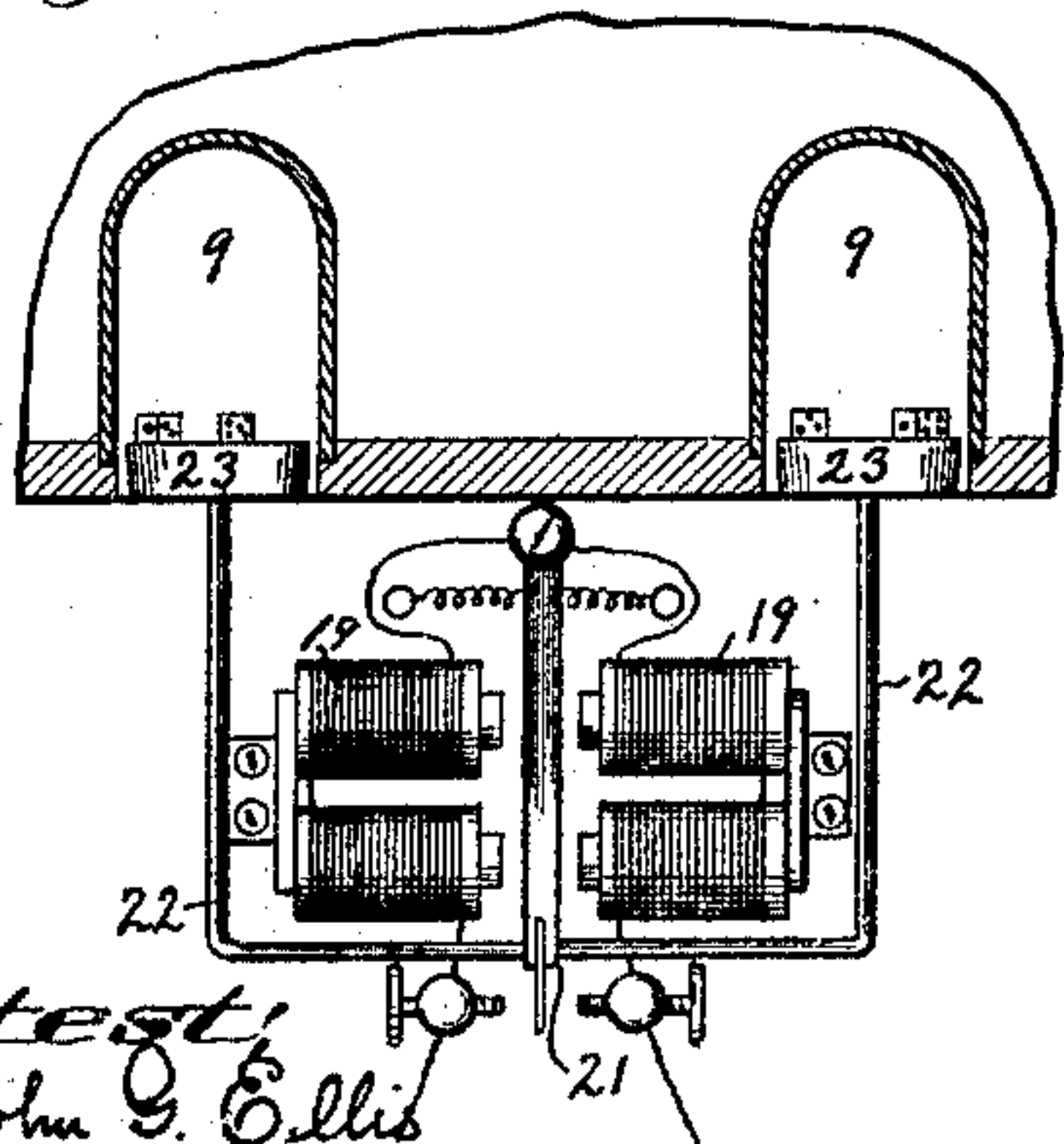


Fig. III,



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Haleohn G. Ellis
A. M. Ebersole

Fig. II.

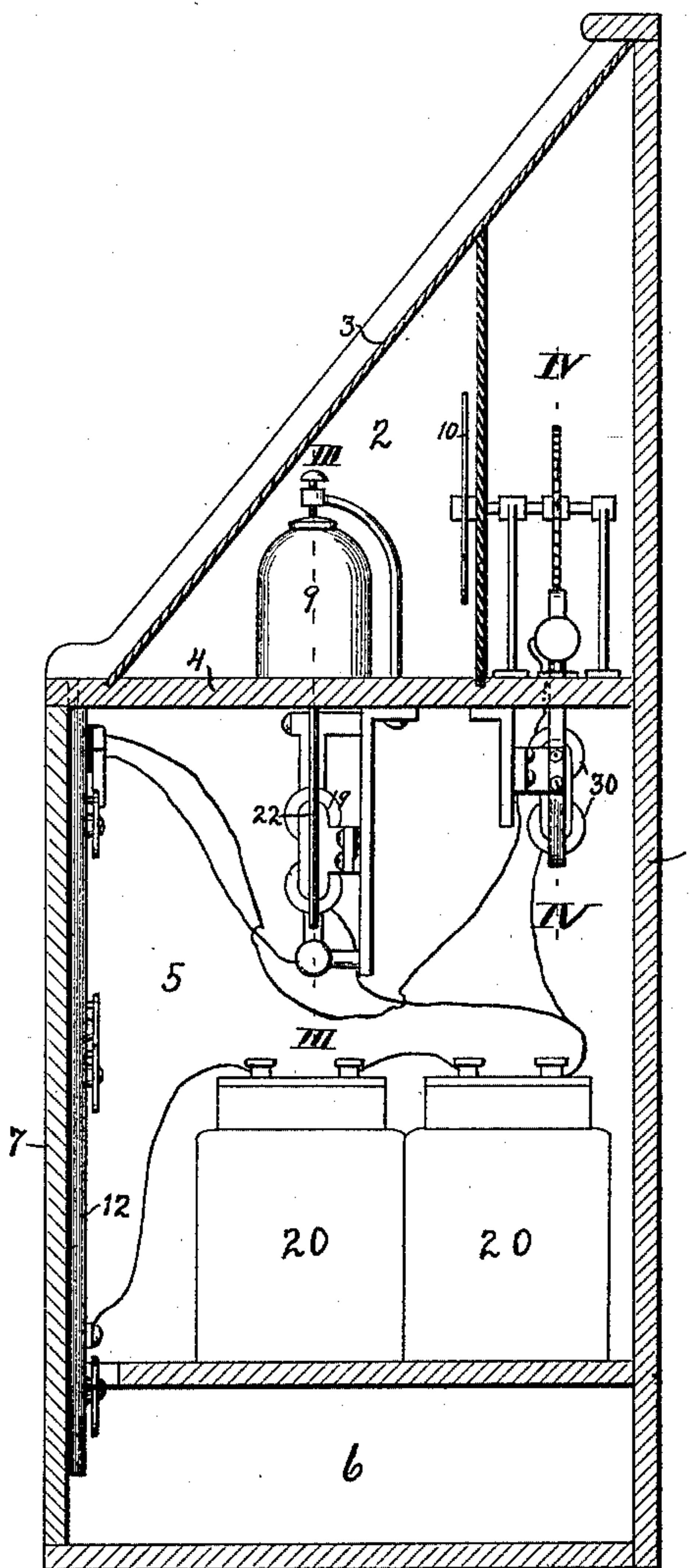
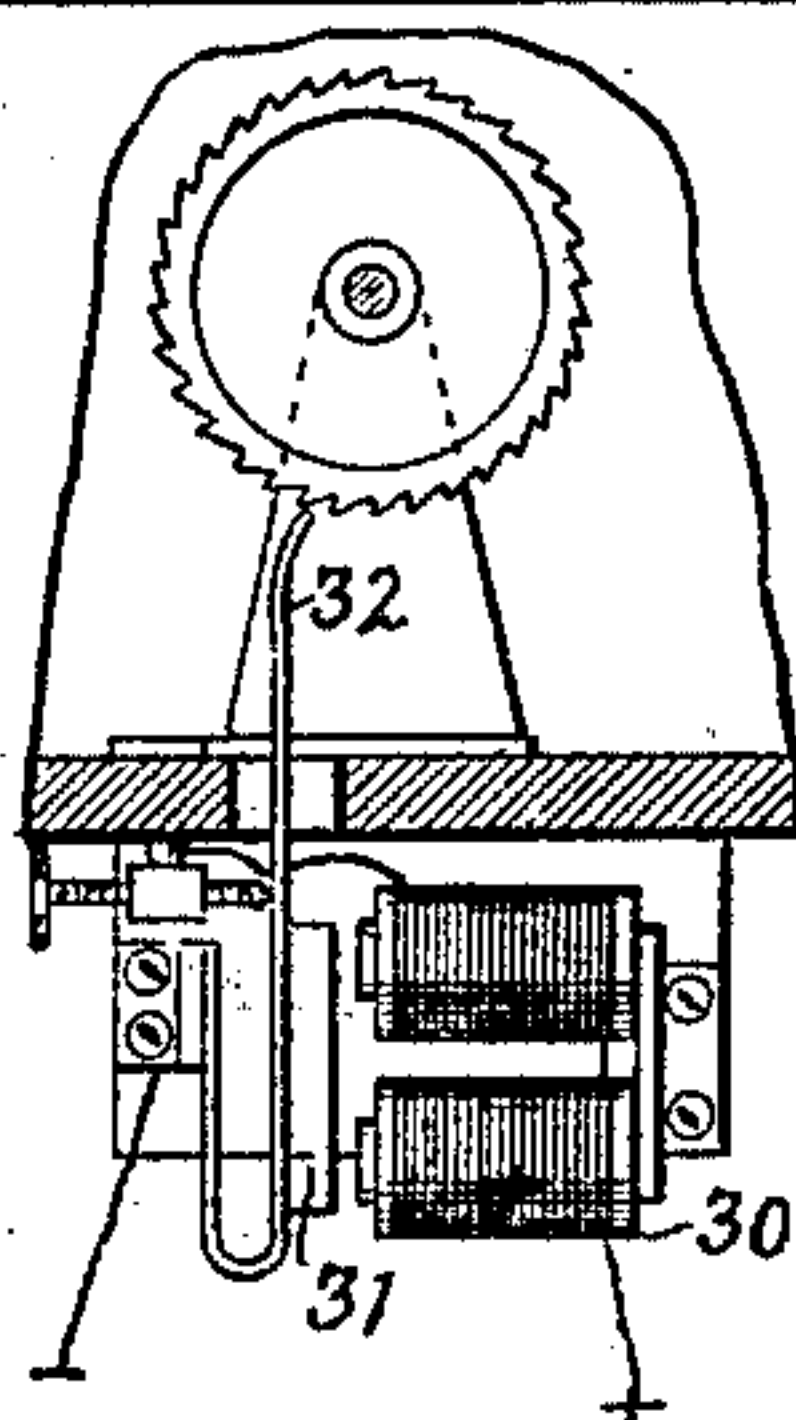


Fig. IV.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. V.

Fig. VI.

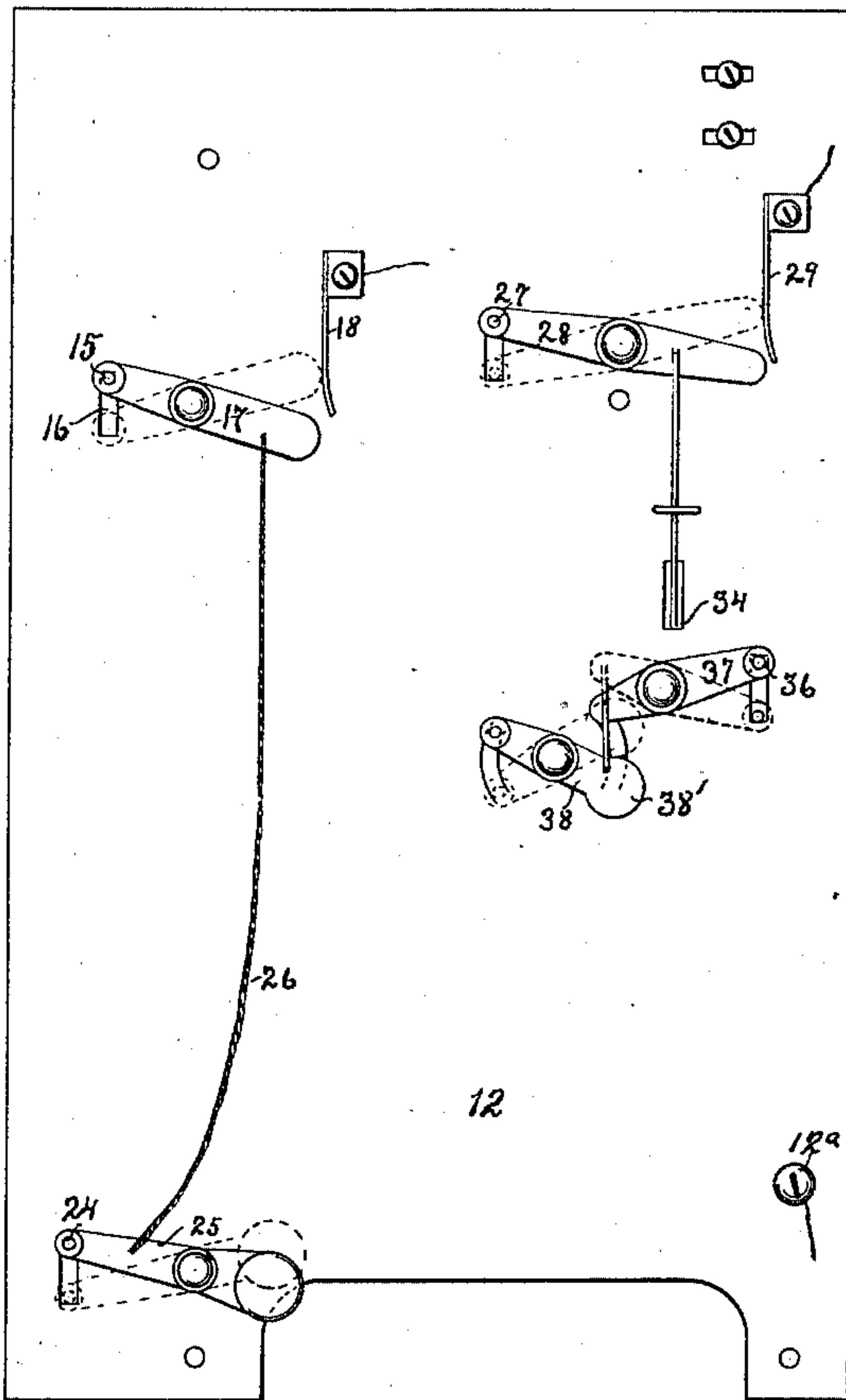
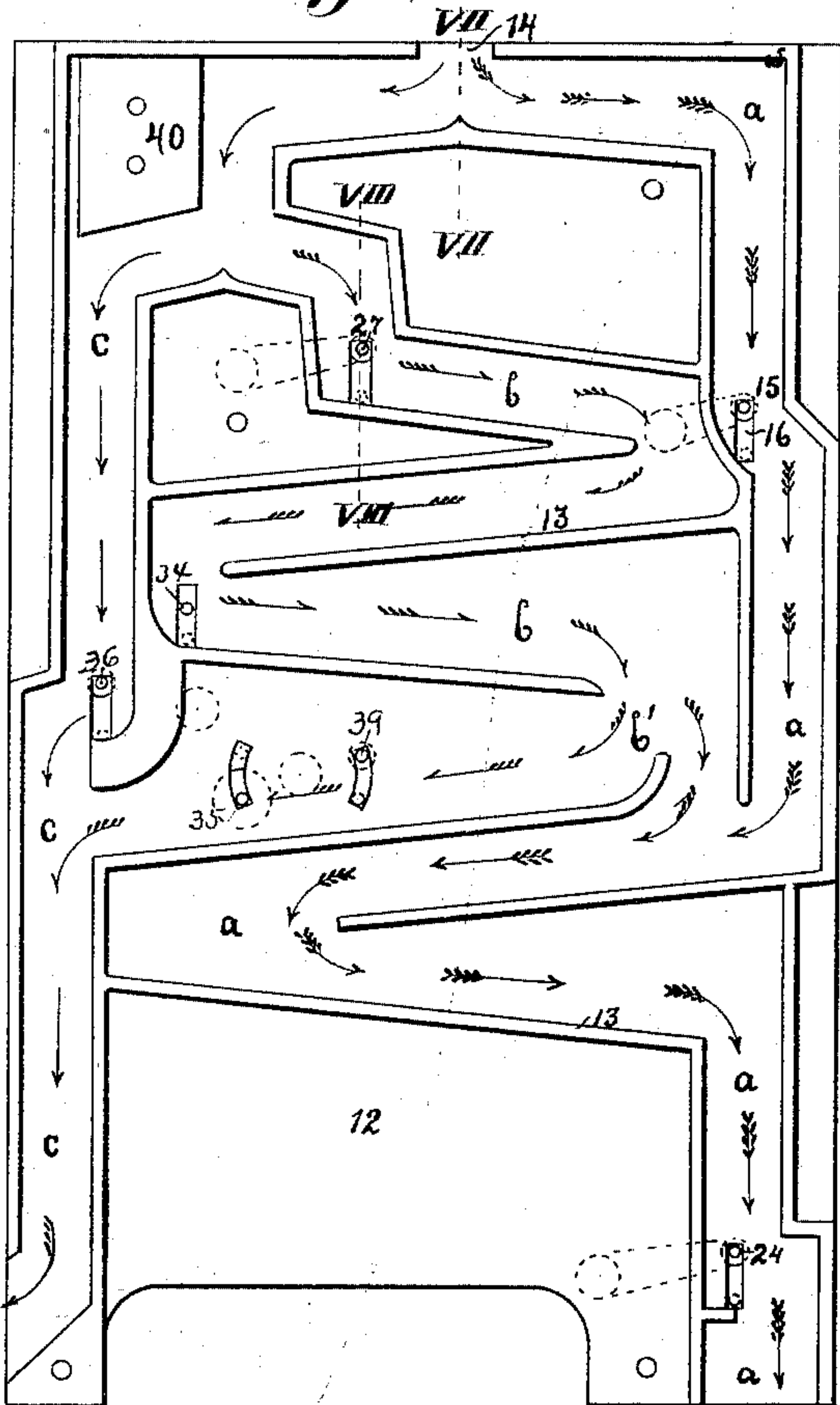


Fig. VII.

Fig. VIII.

Fig. IX.

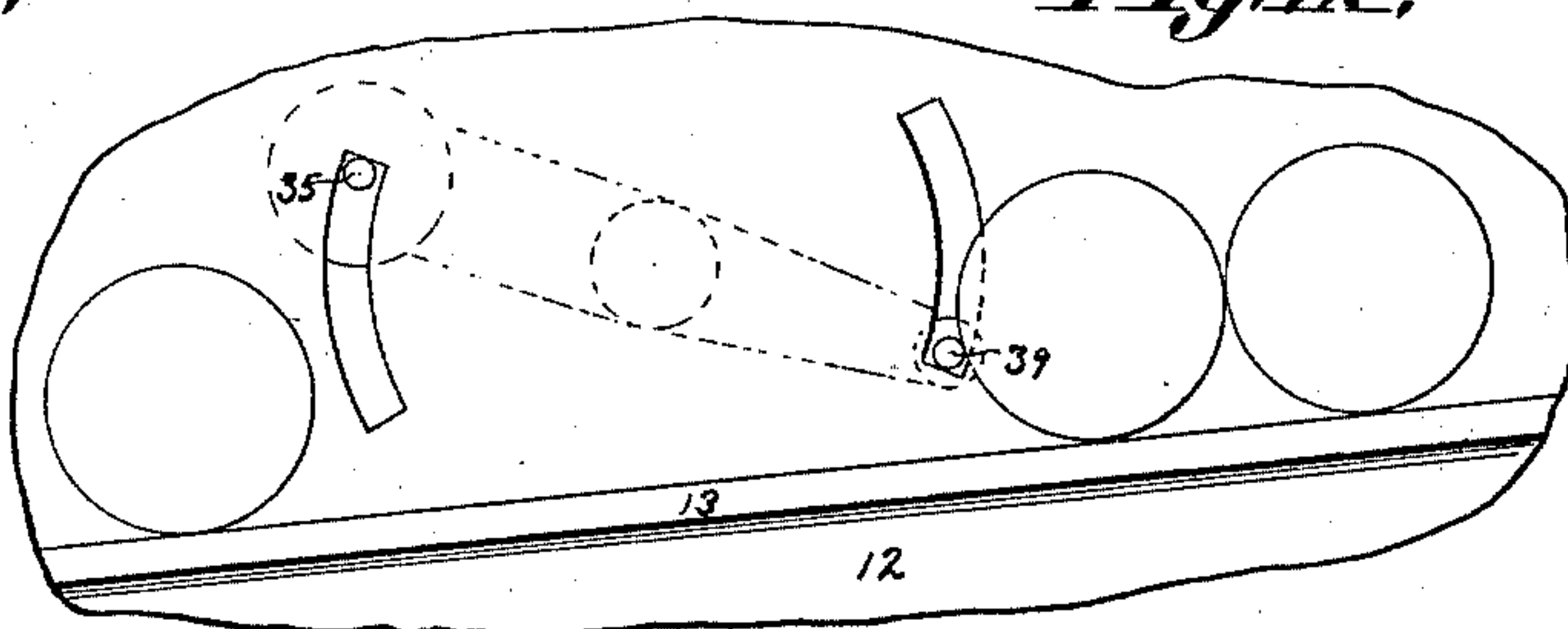
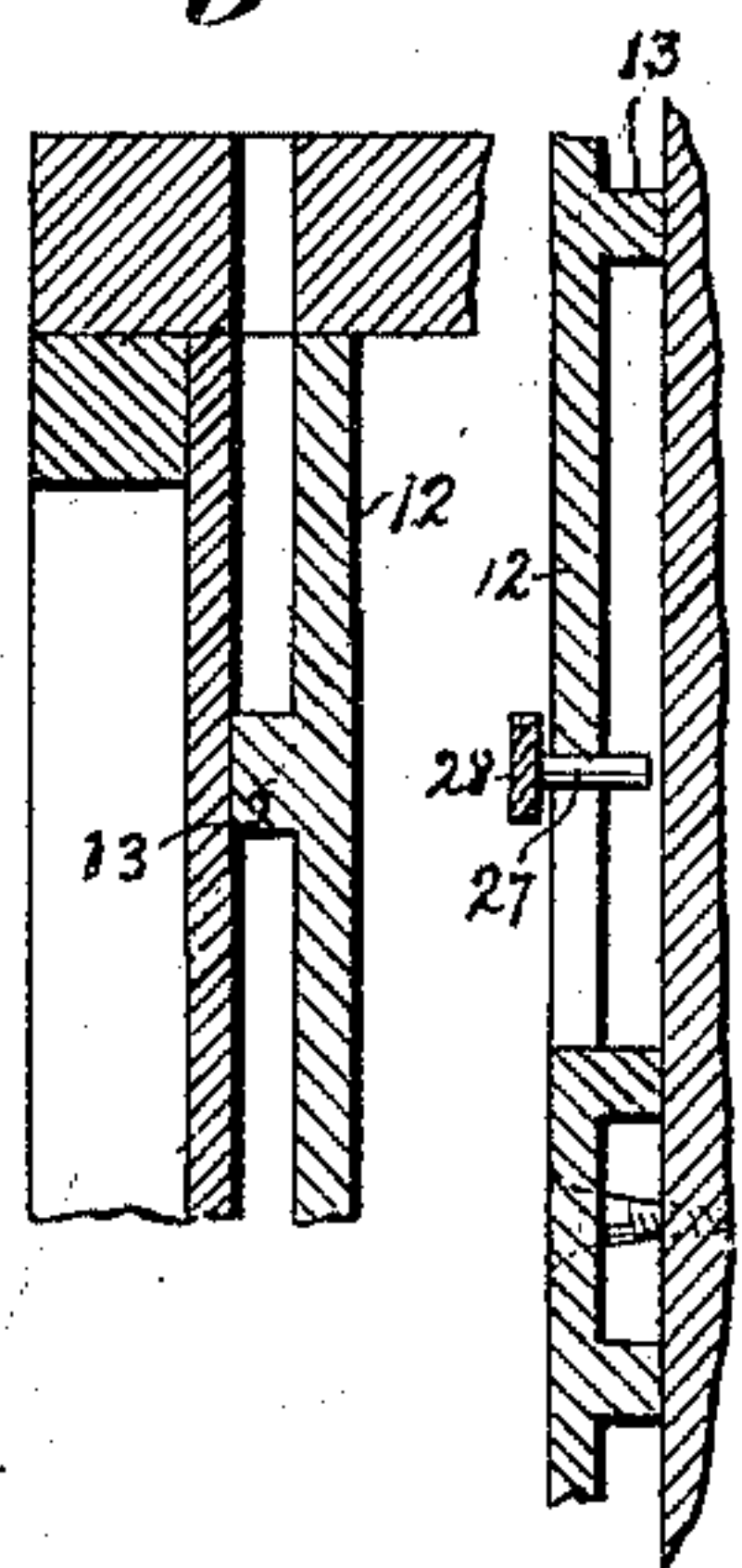
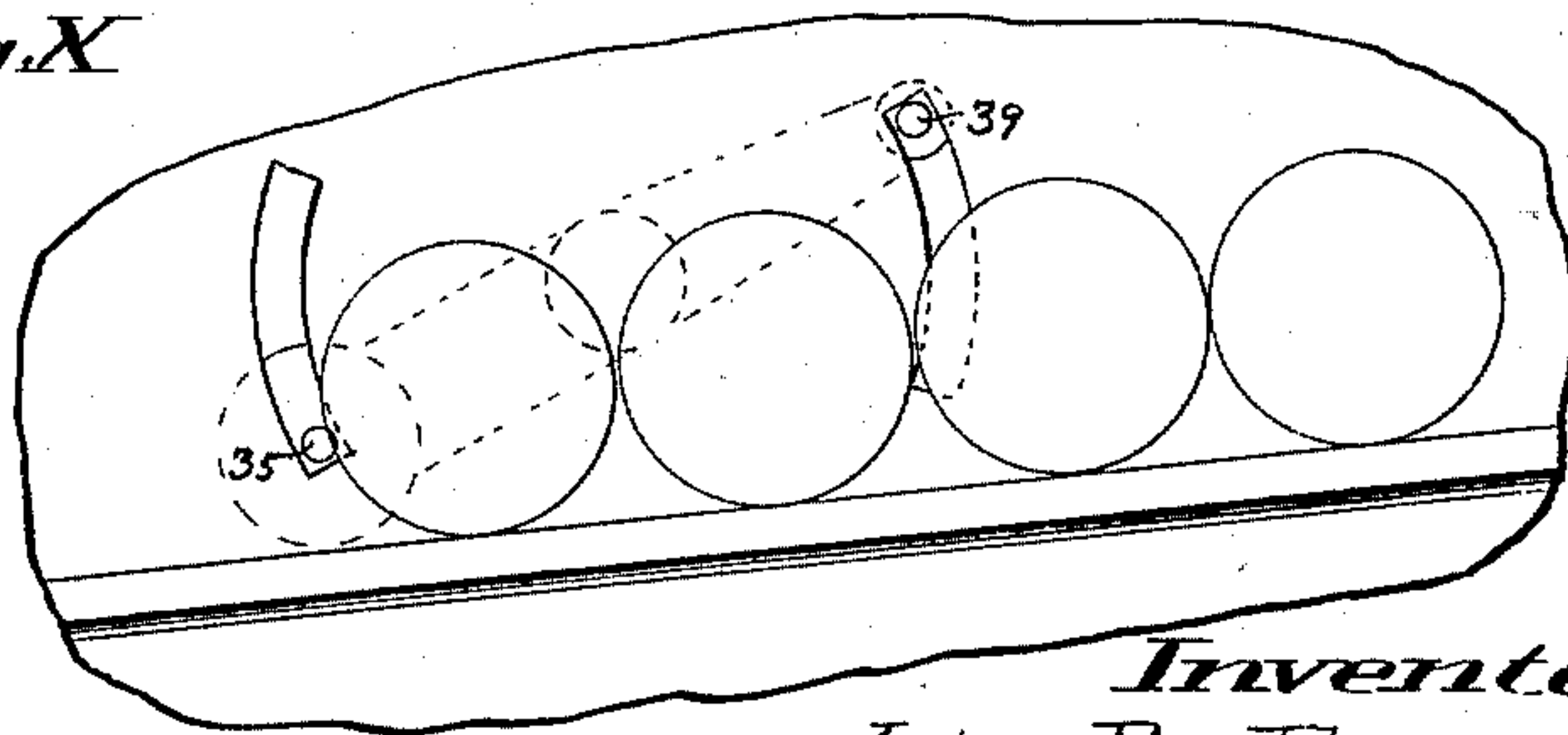


Fig. X.



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Inventor:
John R. Farmer.
By Knight Bros. Attys.

UNITED STATES PATENT OFFICE.

JOHN R. FARMER, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
CHARLES W. HEEG, OF SAME PLACE.

COIN-CONTROLLED APPARATUS.

SPECIFICATION forming part of Letters Patent No. 509,845, dated November 28, 1893.

Application filed September 4, 1893. Serial No. 484,768. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. FARMER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Coin-Controlled Apparatuses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to that class of coin controlled apparatus, in which the coin, after being inserted in the receiving slot, may take one of several channels operating releases during its course through such channel, which
15 move different functions of the machine; and consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a front view of the apparatus, sections of the lower portion being broken
20 away to show the interior. Fig. II is a vertical, cross section on line II—II, of Fig. I. Fig. III is a section through the dice globes, showing the electric apparatus operating the same. Fig. IV is a view, showing the apparatus operating the fortune dial. Fig. V is a
25 front view of the metal plate back of the door 7, showing the channel down which the coin may run. Fig. VI is a back view of the same plate. Fig. VII is an enlarged section of a portion of the door 7, showing the plate fastened behind it, on lines VII—VII, of Fig. V. Fig. VIII is a similar section on line VIII—VIII, of Fig. V. Fig. IX is an enlarged portion of the plate shown in Fig. V, showing
35 one of the mechanical releases for the coin. Fig. X is a second view of the same portion as Fig. IX, showing the release in its opposite position.

Referring to the drawings:—1 is a wooden
40 case for the instrument. It is generally rectangular, higher at the back than in the front, and is divided into two compartments. The upper compartment 2 has a glass front 3, and is separated from the lower compartment by
45 a partition 4.

Within the compartment 2 are situated the visible works of the instrument. Below the compartment 2, and in the compartment 5,
50 are situated the means and mechanism for operating the visible machinery. Below the

compartment 5 is a box 6, into which the coins pass after passing through the slot. The fronts of the compartments 5 and 6 are provided with a door 7, which has a glass plate 8 situated at its upper part.

55 The visible part of the machinery consists in two glass globes 9 in which dice are held, and when the coin inserted in the slot passes down one of the channels it operates to shake these dice until the coin is past a certain point, 60 when it causes them to stop. Should the coin, however, take a different channel, it may operate to revolve the indicator hand 10 around the dial 11; said dial 11 being divided into small compartments, on the face of which are
65 printed various words denoting the fortune of the person operating the machine.

On the back side of the door 7 is screwed a metal plate 12, which plate has small metal ribs or ridges 13 between the plate proper and
70 the door, in this way dividing the space between the plate and the door up into various channels and passages for the coin to roll through. At the upper portion of the plate is an opening 14, directly under a small slot
75 in the partition 4. This is the receiving slot for the machine. The coin being dropped into this slot hits upon a small point immediately beneath the center of it. From here it may roll in one of two directions, either to
80 the right or to the left. If it rolls to the right it will enter the channel *a*; if it rolls to the left, it will turn and hit upon a second point, where it may again turn either to the right or the left. If it turns to the right it will enter
85 the channel *b*, and if it turns to the left it will enter the channel *c*. Presuming that the coin turns to the right in the first instance, and rolls down the channel *a*, it will go down until it meets a small pin 15 projecting from
90 the back of the plate, through a slot 16; striking this pin it will move it down to the bottom of the slot; this pin 15 moves with it an arm 17, which then comes in contact with a contact spring 18, insulated from the plate 12. 95 This then makes an electric connection between the plate 12, which is connected to one pole of a battery by the binding post 12^a, and the contact spring 18. Wires leading from the contact at 18 pass through the electro- 100

magnets 19, and magnetize them; these magnets being in turned connected to the other pole of the battery marked 20.

Between the two magnets 19 is suspended
 5 an armature 21, which may vibrate between them, the said armature carrying a bent wire 22, this wire being connected to the loose bottoms 23 of the dice globes 9. It is evident from this that when the electric current is
 10 passed through the magnet 19, the armature 21 will vibrate back and forth between them, thereby causing the movable bottoms of the dice globes 9 to vibrate up and down, shaking the dice within the globes 9. The coin, after
 15 passing by the pin 15 falls down and rolls until it finally strikes the pin 24 projecting through the plate 12 in the same manner as the pin 15. Striking the pin 24, it moves the lever 25 down; said lever 25 being connected
 20 to the arm 17 by a cord 26. The movement of this lever 25 moves the arm 17 to its original position, and breaks the electric circuit through the magnets 19, thereby causing the dice to stop shaking. The coin, after moving
 25 the pin 24 to its lowest position, drops into the box 6, for the coins. In case the coin should turn to the left, as it first enters the machine through the slot 14, and after descending in the first channel again turns to the right, it
 30 will strike first the pin 27 projecting through a slot in the back of the plate 12, in the same manner as the pin 15, (better shown in Fig. VIII.) This pin 27 is connected to an arm 28, which also makes an electric connection with
 35 the contact spring 29, insulated from the plate 12. When this contact is closed, an electric current will pass through the electro-magnet 30, and cause the armature 31 to vibrate back and forth. This armature is attached to a
 40 spring arm 32, the upper end of which engages in a ratchet wheel on the axis of the indicator hand 10. From this it will be seen that the electric current passing through the magnet 30 will cause the armature to vibrate and the
 45 indicator hand 10 to revolve. This revolution continues until the coin has reached the position in which it will depress the pin 34, which pin 34 is one end of a wire connected to the arm 28, the depression of which pin causes
 50 the arm 28 to move and break the contact with the spring 29, and the indicator hand 10 thereupon ceases to revolve. The coin, after depressing the pin 34, will roll down the channel *b*, fall through a hole *b'* in the said channel,
 55 and strike finally against the pin 35. Other coins may follow this same path, until that portion of the channel *b* between the pin 35 and the hole *b'* is filled with them, after which the coins will roll down and pass into
 60 the channel *a*, and from there into the box 6. In case the coin should turn first to the left on entering the slot 14, and next turn to the left and pass down the channel *c*, it will strike the pin 36, extending through the back of the
 65 plate 12 in a small slot similar to the pin 15, and slot 16, which pin 36 would have to be depressed to its lowest point before the coin

could proceed. This depression of the pin 36 would move the lever 37 to the position indicated by the dotted lines in Fig. VI, and the
 70 lever 37 being connected to the lever 38 would cause it to move into the position indicated by the dotted lines in Fig. VI.

Figs. IX and X more clearly illustrate the movement of these two levers 37 and 38. 75 There are two pins projecting from the lever 38, through slots in the back of the plate 12. At one end is the pin 35, and at the other end the pin 39. When the pin 36 is depressed, the movement of the levers 37 and 38 causes
 80 the pin 35 to rise to the top of its slot, and the pin 39 to descend to the bottom of its slot. The distance between these two pins 35 and 39 is sufficient to allow two coins, which follow the pin 35 to escape and roll down into
 85 the channel *c*; the pin 39 retaining those coins which follow these two. After the coin has passed the pin 36, the weighted end 38' of the lever 38 causes the pin 35 to again descend to the bottom of its slot, and the pin 39 to rise,
 90 letting the coins roll down the slot *b* until they strike the pin 35, which then leaves room back of these coins for others to follow through the opening or hole *b'*. The coin which passes through the channel *c* escapes and comes out
 95 of the box into a small receiver on the outside, and the operator not only receives back the coin he inserted in the slot 14, but two additional ones, which had previously gone
 100 down the slot *b*. In case too many coins are inclined to run down the slot *c*, a small regulator 40 is placed near the upper portion of the machine. The block which forms the
 105 regulator 40, is held to the back of the apparatus by screws fitting in slots in the plate, so that the block can be moved to increase or diminish the size of the opening above the
 110 channels *c* and *b*.

On the inside of the glass plate 3, above the partition which holds the dial 11, are a number of small rectangles. On these rectangles are printed various words of fortune, and numbers to correspond with such numbers
 115 as the dice may show after they have been shaken.

I claim as my invention—

1. In a coin-controlled device, the combination of a plurality of diverging coin passages
 120 having a common centrally superposed slot located to afford to each an equal chance for receiving the coin, electric circuits having independent circuit-closing connections projecting into the respective passages and two
 125 independent chance computing devices controlled by said circuits, substantially as and for the purpose set forth.

2. The combination in a coin controlled apparatus, of the door 7 having the glass plate
 130 8, whereby the coin can be seen to start down any of the various channels, the dice globes 9, means for shaking the dice when the coin goes down the channel *a*, the indicator hand

10, and means for operating the same when the coin goes down the channel *b*, and the channel *c* provided with an escapement whereby the coin will release two others in its passage through the apparatus; all substantially as described.

3. In a coin-controlled apparatus the combination of the metal plate 12 having ribs 13 forming channels for a coin, a dice shaking device, an electro-magnet controlling said dice shaking device, an electric circuit including said magnet, and a switch lever 17 for making and breaking said circuit, and having a pin 15 projecting into the coin channel, substantially as and for the purpose set forth.

4. In a coin-controlled apparatus, the combination of the metal plate 12, having ribs 13 forming channels for a coin, a fortune telling device, an electro-magnet controlling said fortune telling device an electric circuit including said magnet, and a switch lever 25 for making and breaking said circuit, and having a pin 24 projecting into the coin channel, substantially as and for the purpose set forth.

5. The combination in a coin-controlled apparatus, of the metal plate 12 having ribs 13 forming the channels down which the coin rolls, the lever 17 having a pin 15 located in one of the channels, which operate to open and close an electric circuit through the magnets 19 and shake the dice in the globes 9, a lever 28 having a pin 27 also located in one of the channels, which operate to open and close an electric circuit through the magnet 30 and revolve the indicator hand 10, all substantially as described.

6. In a coin-controlled apparatus, the combination of two diverging coin channels having an inlet arranged to afford the channels unequal chances for securing the coin, one

of said channels having an outlet and a coin arresting piece and the other channel having a releasing device operated by impact of a coin therein and having working connection with the arresting device in the other channel to cause it to release its coins, substantially as and for the purpose set forth.

7. The combination in a coin controlled apparatus, of channels so arranged that the coin may descend any one of three channels, *a*, *b*, or *c*, operating the lever 17 and pin 15 in the channel *a*, whereby the coin closes an electrical circuit through the magnets 19 and shaking the dice in globes 9; or the lever 28 and pin 27 in channel *b*, whereby the coin closes an electrical circuit through the magnet 30, thereby turning the indicator hand 10; or the lever 38 and pins 35 and 39 in the channel *c*, thereby operating the mechanical release, and allowing two additional coins to escape from the apparatus with the operating coin; all substantially as described.

8. In a coin controlled apparatus, a case divided into two compartments, compartment 2, having a glass front 3, and within it the dice globes 9 and indicator hand 10, the metal plate 12, having ribs 13 forming the different channels down which the coin may roll, electrical connections in two of these channels for operating the dice globes 9 and indicator hand 10, and the mechanical release in the other channel for allowing the escape of the two additional coins with the operating coin, and the galvanic battery 20 for operating the electro-magnets 19 and 30; all substantially as described.

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In presence of—

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A. M. EBERSOLE.