

PATENT SPECIFICATION



Application Date: Dec. 16, 1919. No. 31,518/19.

160,264

Complete Left: Aug. 24, 1920.

Complete Accepted: Mar. 16, 1921.

PROVISIONAL SPECIFICATION.

Improvements in Coin Freed Amusement Machines.

I, PERCY CHARLES WILDE, Estate Agent, of 2, Showell Green Lane, Sparkhill, Birmingham, in the County of Warwick, do hereby declare the nature of this invention to be as follows:—

This invention relates to coin freed amusement machines and has for its object to provide a machine of a competitive character which can be operated by a number of persons.

The invention consists broadly of a machine wherein the insertion of a predetermined number of coins results in the release of a ball for play one or some of the coins passing to the till in payment for the use of the machine the other coins passing to a receptacle at all times under the control of the players from which the said coins can be removed at the end of the game; or at any other time, the operation of removing the coins resetting the machine so that further coins are required before the machine is again available for play.

In accordance with the invention, according to one arrangement I provide a number of coin slots each identified by a certain number or symbol. The insertion of a coin into the first slot gives an indication that the player is entitled to so many attempts and also operates a mechanism to permit of the insertion of a coin into the next slot and the insertion of the second coin causes the indication of the number of attempts open to the second player and frees the third slot and so on. After the insertion of a certain number of coins say three for instance—the next or fourth coin similarly operates to set an indicator and also frees a ball or other device for play. Of the number of coins inserted one or some go to the till of the machine while another or others goes to a pool or receptacle for eventual return to the players. If more than a certain number of players are using the

machine a further coin or further coins are passed to the till while the others pass to the pool or return receptacle.

Before commencing to play each player by means of a handle or other device outside the machine moves a chute or equivalent device within the machine to a position where if he fails to direct the ball or other device to a winning position the ball passes to operate the player's indicator to show that one attempt has been subtracted from the number of attempts originally available. If however the player succeeds in directing the ball to a winning position the ball passes back into play without operating this device and the player is still left with the whole number of attempts available. Each player plays in turn and the winner of the game is the one who at the finish has an attempt or attempts still available. At the end of the game the pool releasing device is operated and this causes the return to the players of all the returnable coins collected in the pool. The actual game may take various forms. For instance it may consist in projecting a ball and endeavouring to catch it in a cup or cups.

It will be seen from the foregoing that I have provided a means whereby a number of players can have the use of the machine for a single coin or a lesser number of coins than there are players and the machine is available for play until all the attempts have been exhausted the abstraction of the returnable coins or pool at the end of the game resetting the mechanism for the next operation.

Dated this 16th day of December, 1919.

A. A. THORNTON,
Chartered Patent Agent,
8, Quality Court, Chancery Lane,
London, W.C. 2,
For the Applicant.

[Price 1/-]

COMPLETE SPECIFICATION.

Improvements in Coin Freed Amusement Machines.

I, PERCY CHARLES WILDE, British subject, of 2, Showell Green Lane, Spark-hill, Birmingham, in the County of Warwick, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to coin freed amusement machines and has for its object to provide a machine of a competitive character which can be operated by a number of persons.

In certain coin freed amusement machines as at present constructed it is usual to provide some apparatus such as a ball and movable cup device under the control of the player, whereby upon the insertion of a coin the ball is released for play, the ball being returned for play upon each successful operation of catching it in the cup and adapted to move a pointer in view of the player. Means may also be provided whereby a number of coins may be inserted in a single coin slot, some of the coins passing direct to the till whilst others are returnable, the number of coins returnable being dependent upon the number inserted and upon the number of successful operations.

This invention consists broadly of a coin freed amusement machine wherein after the insertion of a predetermined number of coins in separate slots the insertion of a further coin in another slot releases the machine for play.

The present invention also comprises a machine wherein the insertion of a predetermined number of coins in separate slots results in the release of a ball for play, one or some of the coins passing to the till in payment for the use of the machine the other coins passing to a receptacle at all times under the control of the players from which the said coins can be removed at the end of the game, or at any other time, the operation of removing the coins re-setting the machine so that further coins are required before the machine is again available for play.

In accordance with the invention, according to one arrangement I provide a number of coins slots each identified by a certain number or

symbol. The insertion of a coin into the first slot gives an indication that the player is entitled to so many attempts and also operates mechanism to permit of the insertion of a coin into the next slot and the insertion of the second coin causes the indication of the number of attempts open to the second player and frees the third slot and so on. After the insertion of a certain number of coins, say three, for instance, the next or fourth coin similarly operates to set an indicator and also frees a ball or other device for play. Of the number of coins inserted one or some go to the till of the machine while another or others goes to a pool or receptacle for eventual return to the players. If more than a certain number of players are using the machine a further coin or further coins are passed to the till while the others pass to the pool or return receptacle.

In order that the invention may be more clearly understood reference will now be made to the accompanying drawings illustrating one arrangement of my invention, and in which:—

Fig. 1 is a perspective view of a coin-freed amusement machine embodying my improvements.

Fig. 2 is a rear elevation of the machine with the rear cover or casing and part of the mechanism removed.

Fig. 3 is an enlarged fragmentary elevation of the coin freed mechanism showing the mechanism for effecting release of the ball for play previous to its operation by the insertion of a coin.

Fig. 4 is a similar view showing the position of the mechanism after operation when a coin has been inserted and passed to the till.

Fig. 5 is a similar view to Fig. 3 but taken as on the line 5—5 of Fig. 2 and shows how the coins pass to the reclaimable receptacle.

Fig. 6 shows in end elevation an arrangement for effecting release of the mechanism to reset the machine.

Fig. 7 is an elevation looking in the direction of arrow A Fig. 9. In this figure the tubes through which the ball or balls pass are removed for the sake of clearness so as to show mechanism

obsured from view in Fig. 2. The said Fig. 7 also shows the ball releasing and operating device and

Fig. 8 is a sectional elevation taken as on the line 8—8 of Fig. 7.

Fig. 9 is an enlarged sectional elevation on the line 9—9 of Fig. 2.

It is to be understood that each coin slot is provided with a coin freed mechanism and communicates with a hollow bracket forming in effect a passage through which the coin passes on its way to the till or the reclaimable coin receptacle such bracket also constituting a part of such coin freed mechanism. As these coin freed mechanisms are similar in construction and operation I will only describe one of the same in detail together with its operation and connection with the various operating handles and the additional mechanism which is brought into play upon actuation of the coin freed mechanism.

Referring to the drawings the numeral 1 represents the coin slots each identified by a certain number or symbol. When a coin is inserted in the first slot which has no obstructing pin behind it, it falls to the position shown at *a* Fig. 9 and a knob 2 is pressed by the operator and a lever 3 (Figs. 2 and 5) connected to a crank 3¹, mounted on a shaft 4 which extends across the machine, is rocked and carries with it a lever 5 also secured to the shaft 4 thus moving a rod 6 extending across the machine and guided in slots 7 in the hollow coin-passage brackets 9². The rod 6 engages one edge of the coin and the other edge of the coin presses against a pin 8 carried by a bell crank lever 9 and guided in a slot 9¹ (in the frame or bracket 9²) and a slot 10¹ formed in a quadrant 10 thus moving the bell crank lever 9 to the position shown in Fig. 4, and rotating the ratchet quadrant 10 carried by a lever 11 pivotally mounted on a shaft 12 on the bracket 9² and moving an indicator 13 to its position shown in Fig. 4 so that an indication is exhibited at the front of the machine that the player is entitled to a certain number of attempts. Thus three white spots appear at the opening 13^a. As the front portion of the lever 11 is moved down it carries with it a cranked pin 14 guided in a slot 15 in the bracket 9² the said cranked pin 14 extending in front of the second coin slot, thus releasing the second slot for the insertion of a further coin. As already mentioned there is no cranked pin such as 14 behind the first coin slot which is at all times free for the insertion of a coin. The

insertion of a coin in the second slot enables a mechanism similar to that described to be operated by again pushing the knob 2, and releases the third coin slot by removing its respective cranked pin 14 down away from the coin slot. All the coins thus inserted pass down a chute 16 to a retainer or reclaimable receptacle 17, that is, to the pool. As shown in the drawings, referring now to Figs. 3 and 4, there is an additional mechanism so that when a coin is inserted in the fourth slot the underside of the lever 11 engages the upper end of a cranked rod 18 which has a cranked portion 18¹ which on being pressed down engages a hooked lever 19 pivotally mounted at 19¹ to the cover and simultaneously operates a spring controlled bell crank 20 to withdraw a rod 21 secured thereto from its engaging position with a ball 22 (see Fig. 2) normally retained in the inclined chute 22¹ and allows the ball to enter the lower portion of a vertical container 23 containing a column of balls such as 22. Referring now to Figs. 2, 7 or 8, the rotation of a knob or handle 24, disposed in front of the machine, operates to rock a centrally pivoted lever 26 by means of links 26¹ and a shaft 24¹ upon which the handle is mounted, and so raise a plunger 25 carried by one end of said lever, which plunger-carrying end of the lever is guided in a slot in the container 23. This plunger 25 engages the underside of the lowest ball thus operating when raised to lift the column of balls and bring the top ball level with the opening to the chute 27 down which it rolls and passes out to play through an opening 27¹ in the front face of the machine. The movement of the other end of the bar or lever 26 is limited by stops 26² on the machine frame. Means are provided so that only one ball at a time is presented for play. Thus a stop 26² on the lever 26 is adapted to engage a vertical rod 28 to operate a rocking plate 29 which plate is pivotally mounted on the vertical container 23 and operates when turned to close the top opening to the chute 27, after the ball has passed down the chute.

A spring controlled rocking lever 30 is also provided at the lower end of the chute, one arm 30¹ of which extends through a slot in the container 23. This spring controlled rocking lever is turned outwardly by the upward movement of the plunger 25 when freeing a ball for play but when such plunger is lowered the rocking lever again assumes its normal obstructing position and maintains the column of balls in the elevated

position to permit of the entry beneath the column of a used or played with ball.

The coins inserted in the fourth and fifth slots pass down a chute 31 and into a till 31¹ in payment for the use of the machine as will be readily seen by referring to Figs. 2 and 9. It will be observed that the ball cannot be released until a coin is inserted in the fourth slot, that is, until the rod 21 is removed as already described, and this slot is not free until coins have been inserted in the first, second and third slots, that is, until the respective cranks and pins 14 have been moved out of engagement with the respective coin slots. But the coins inserted in the first, second and third slots are at all times under the control of the players, the coins inserted in these slots passing down the chute 16 to the receptacle 17 as already described.

Before the sixth, seventh and eighth slots can be released, a coin must be inserted in the fifth slot, so as to remove the obstructing pin 14 which previously remained in front of the said slot. But the coins which are inserted in the sixth, seventh and eighth slots also pass to the reclaimable receptacle 17, as will be readily understood.

Before commencing to play each player places the pin 32¹ on a handle or latch 32 (see Fig. 1) against his number and, by means of this latch or handle or other device outside the machine, moves a chute or equivalent device 33, connected within the machine by a rod 33¹ to the latch 32, (Fig. 2) to a position into registration with one or other of the tubes 34 corresponding to the players number, so that if he fails to direct the ball or other device to a winning position the ball passes through the opening 27² down the chute 33 to the tube 34 corresponding to the players number. The ball in passing down the tube 34 engages a lever 35, which moves in a slot in the tube 34 to move the ratchet pawl 35¹ out of engagement with the teeth of the quadrant 10, which is moved a distance of one tooth the movement being checked by the pawl 47. This step by step movement is effected by means of the bell crank lever 9 operating under the action of a spring 36 and so operates the player's indicator 13 to show that one attempt has been subtracted from the number of attempts originally available. This operation will be clearly understood by reference to Figs. 3 and 4. Thus two white spots instead of three would be shown on the player's indicator 13 (Fig. 1) and so on.

If, however, the player succeeds in directing the ball to a winning position, that is, if he catches it in a cup 37 (see Fig. 1) this cup is moved along a slot 37¹ by means of a handle 37² (in front of the machine) and connections 37³, and the ball passes down a "neutral" tube 38 and back into play without operating the above device, that is the lever 35 and ratchet quadrant and the player is still kept with the whole number of attempts available.

Each player plays in turn and the winner of the game is the one who at the finish has an attempt or attempts still available. At the end of the game (or at any other time if desired) the pool releasing device is or may be operated and this causes the return to the players of all the returnable coins collected into the pool or receptacle 17. The releasing device is shown in Fig. 6 and consists of an operating handle 39 outside the machine, and on the same shaft 39¹ on which the handle is mounted is a lever 40 carrying a roller 41 adapted to engage a spring controlled lever 42, carried by a bracket 42¹ mounted upon the frame. Pivottally mounted to the said lever 42 is one end of a connecting link or bar 43 the other end of which is pivottally mounted to a lever 44 on a shaft 45 which extends across the machine and carries a series of pins 46 each of which is adapted to engage when operated the pins 35² and 47² secured respectively to the spring controlled pawl levers 35¹ and 47. On actuation of the handle 39 the parts move from the position shown in dotted lines (the normal position) to the position shown in full lines and thus free the quadrant 10 which is returned to its normal position. Simultaneously with this operation a rod or lever 49 is rocked to the position shown in dotted lines (Fig. 4) and engages the hooked lever 19 to disengage the rod 18 and on release of the handle 39 the rod 21 moves back to its normal position shown in Fig. 3. Further, the rotation of the shaft 39¹, (Fig. 2) through the intermediate connections 48 moves or rocks a plate or cover 17¹ of the receptacle 17 thus releasing the reclaimable coins which pass down a chute 50 at the front of the machine. All parts are now in the normal position the indicators 13 if any were registering are returned to zero and the machine is reset ready for the insertion of further coins and a new game.

Although I have shown my invention in connection with the usual ball and

movable cup device it will be understood that the actual game may take various forms.

It will be seen from the foregoing that I have provided a means whereby a number of players can have the use of the machine for the expenditure of a single coin or a lesser number of coins than there are players, and the machine is available for play until all the attempts have been exhausted the abstraction of the returnable coins or pool at the end of the game resetting the mechanism for the next operation.

15 Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

20 1. A coin freed amusement machine wherein after the insertion of a predetermined number of coins in separate slots the insertion of a further coin in another slot releases the machine for play.

25 2. A coin freed amusement machine wherein after the insertion of a predetermined number of coins in separate slots a further coin or coins in other slots are passed to the till while the other coins pass to the pool or receptacle for subsequent recovery.

30 3. A coin freed amusement machine wherein the insertion of a predetermined number of coins in separate slots results in the release of a ball or other device for play; one or some of the coins passing to a till in payment for the use of the machine, the other coins passing to a pool or receptacle under the control of the players whereby they are reclaimable, the operation of removing the returnable coins resetting the mechanism so that further coins are required before the machine is again available for play.

45 4. A coin freed amusement machine wherein one or some of the coins pass

to the till whilst the other coins are reclaimable by the players, comprising a number of coin slots, means for releasing each subsequent slot when a coin is inserted in the previous slot, means for releasing a ball or other device for play on the insertion of a predetermined number of coins a series of indicators denoting the number of attempts allotted and available to each player, means whereby the said indicators are automatically operated as the game proceeds, and means for releasing the returnable coins and resetting the machine so that further coins are required before the machine is again available for play.

5. A coin freed amusement machine according to Claims 1 and 4 having a chute or equivalent device adapted to be moved into registration with one or other of a series of tubes or the like to which the ball or other device is directed and when so directed operates mechanism to cancel one of the indicated attempts previously allotted to the player and a "neutral" chute through which the ball passes when the player directs the ball to a winning position.

6. The combination with a coin freed amusement machine according to the preceding claims, of a ball and cup device and mechanism for operating same substantially as set forth.

7. The coin freed amusement machine constructed, arranged and adapted to operate substantially as hereinbefore described with reference to the accompanying drawings for the purpose specified.

Dated this 24th day of August, 1920.

A. A. THORNTON,
Chartered Patent Agent,
Quality Court, Chancery Lane,
London, W.C. 2,
For the Applicant.

[This Drawing is a reproduction of the Original on a reduced scale]

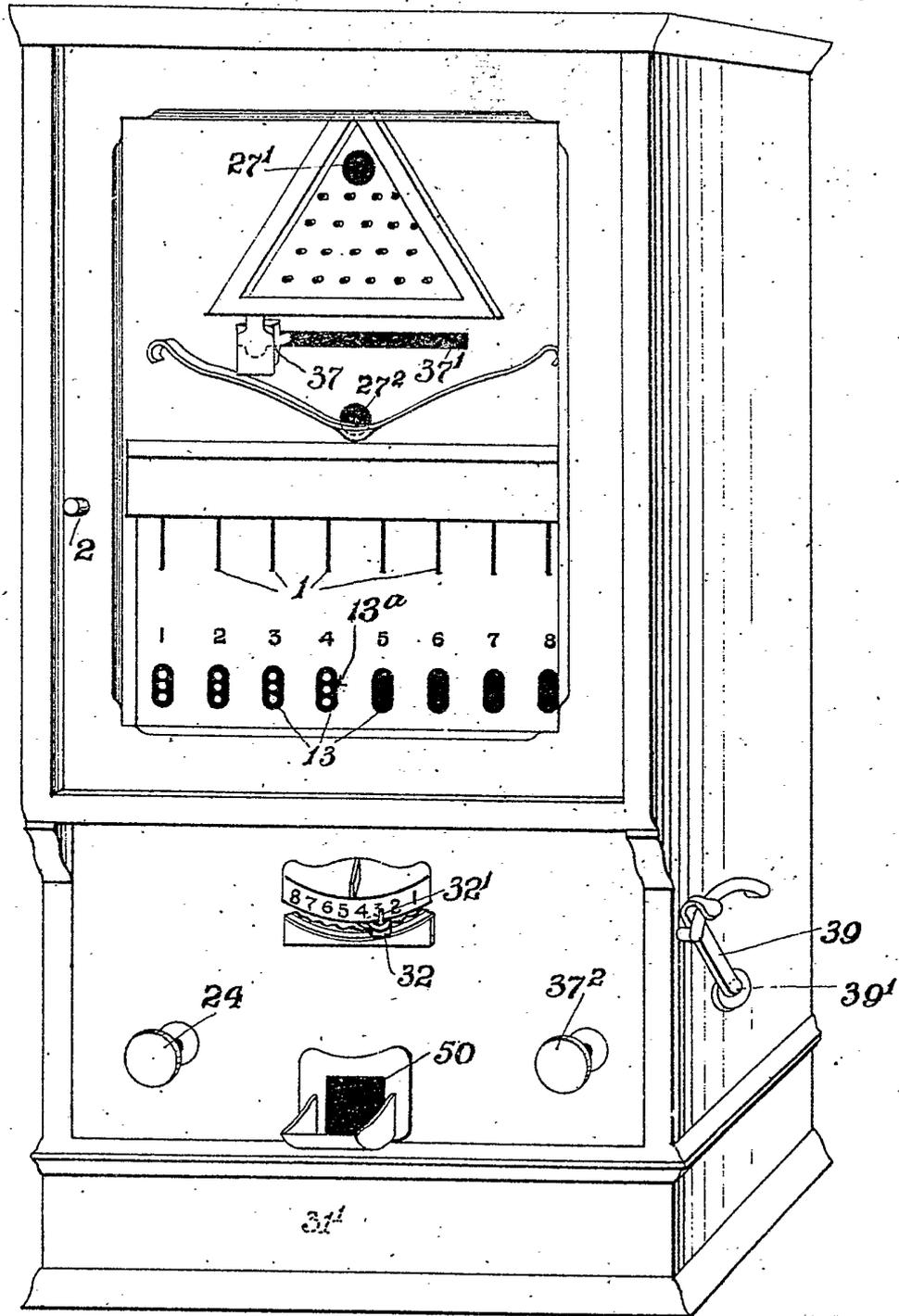


FIG 1

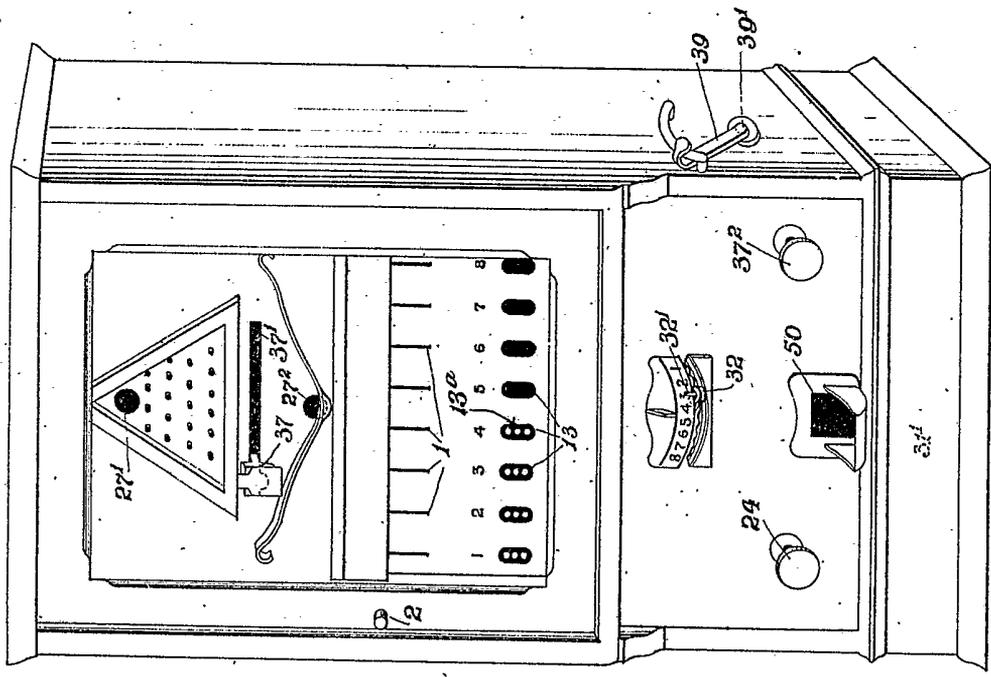


FIG 1

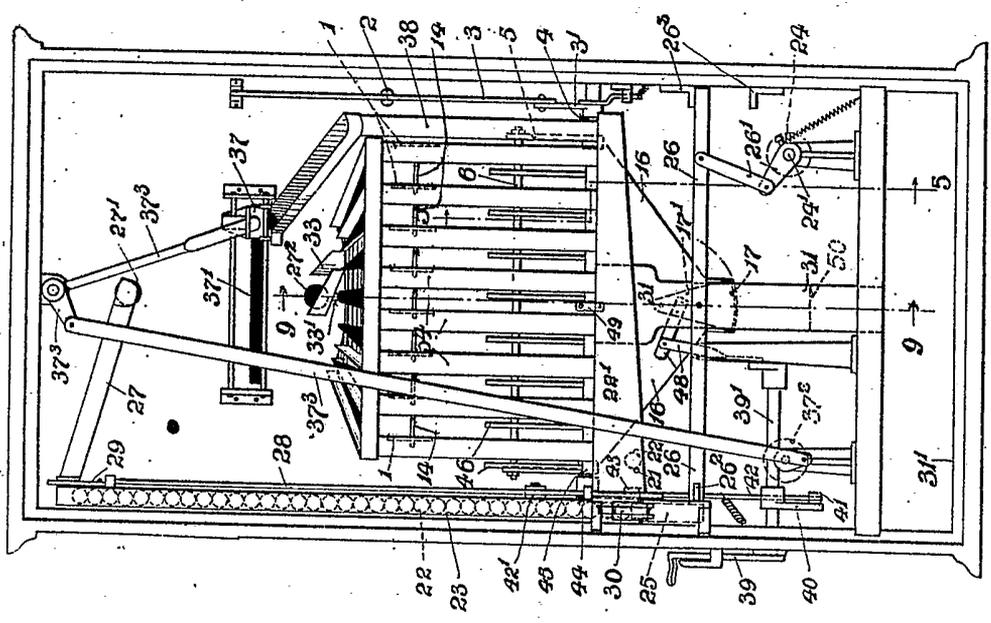


FIG 2.

[This Drawing is a reproduction of the Original on a reduced scale]

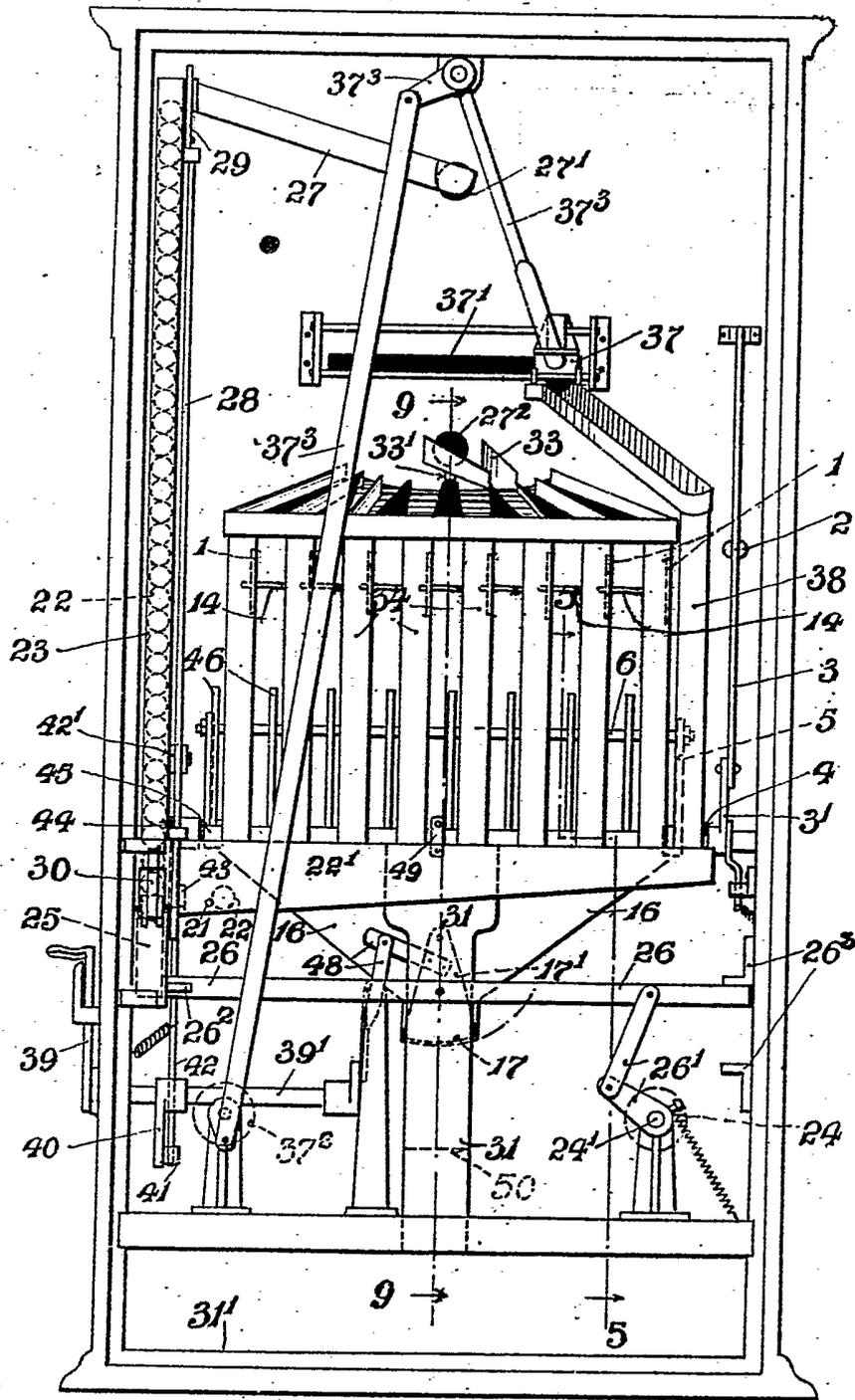


FIG. 2.

[This Drawing is a full-size reproduction of the Original.]

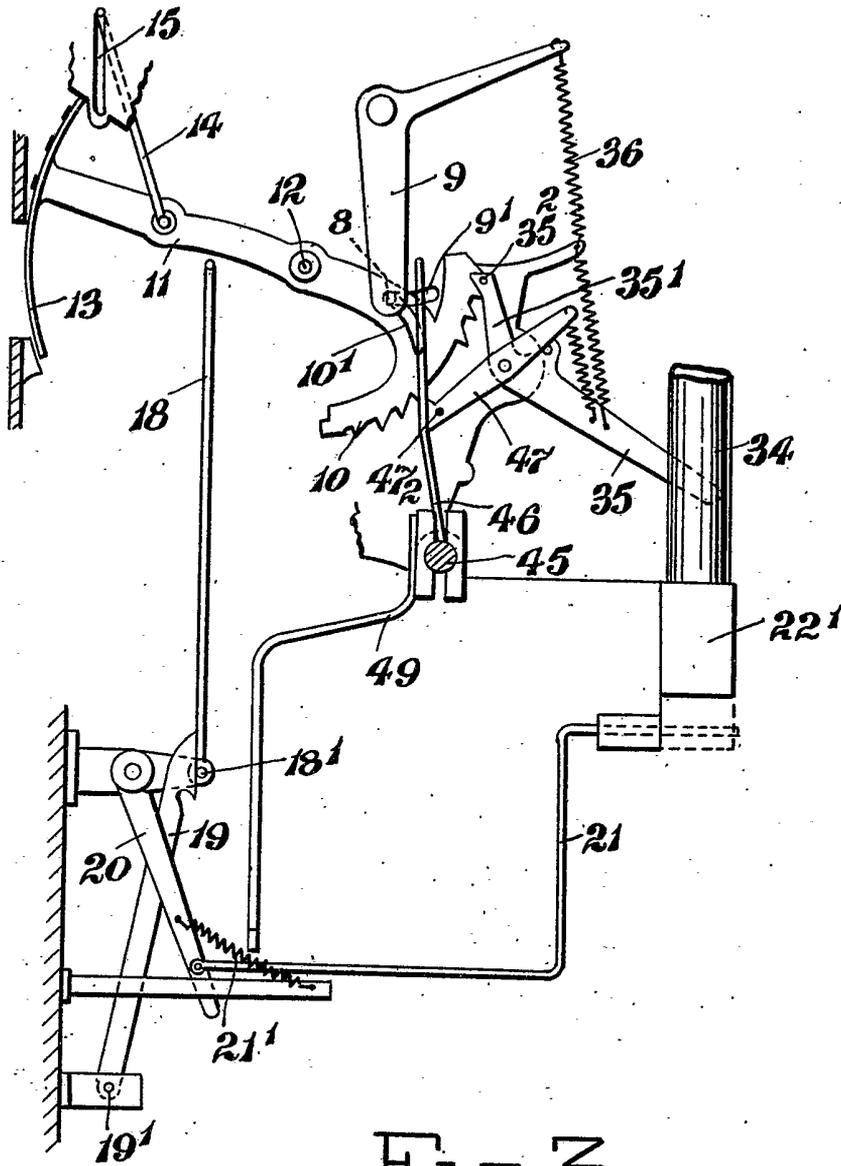


FIG. 3.

[This Drawing is a reproduction of the Original on a reduced scale.]

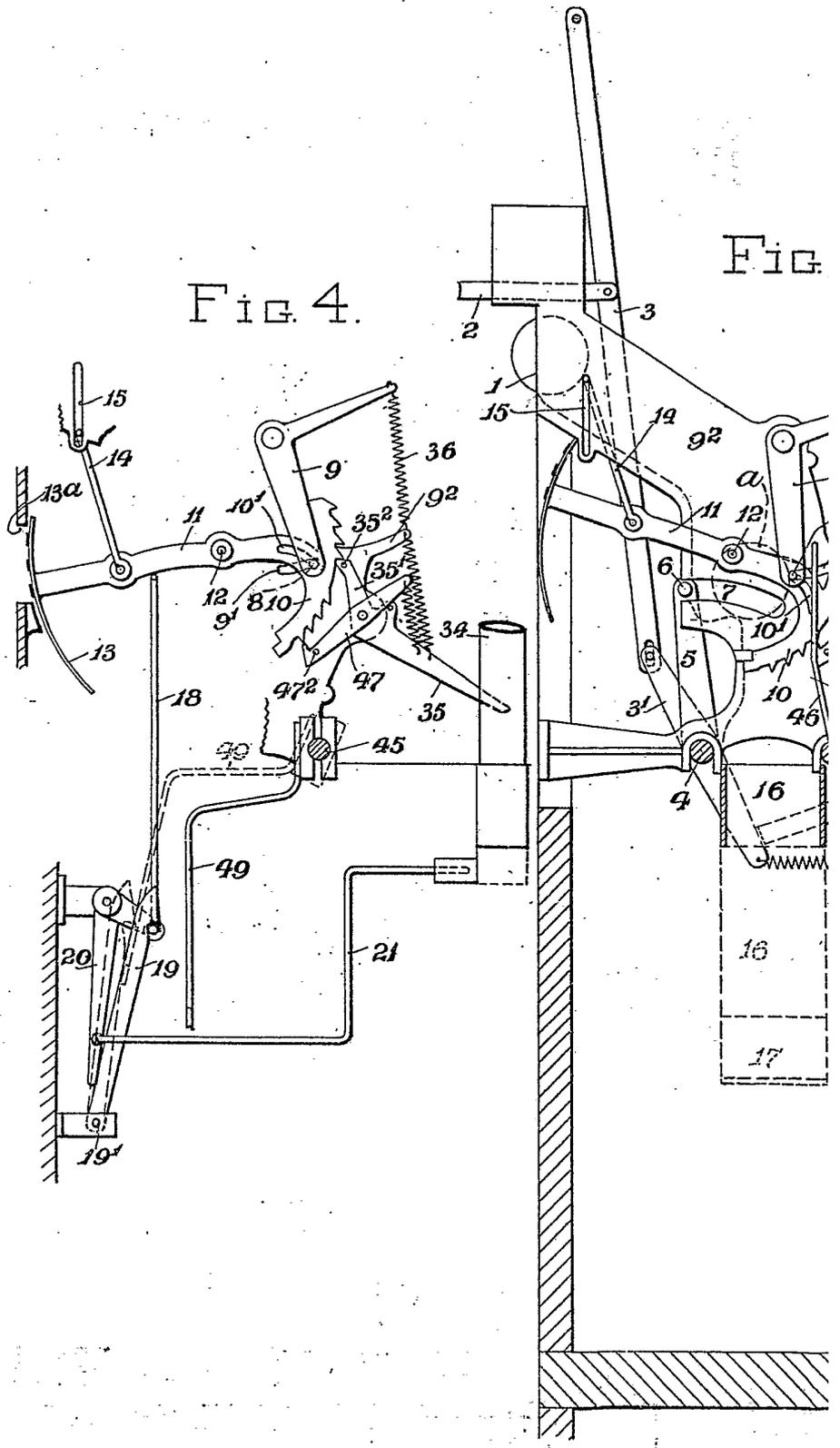


FIG. 5.

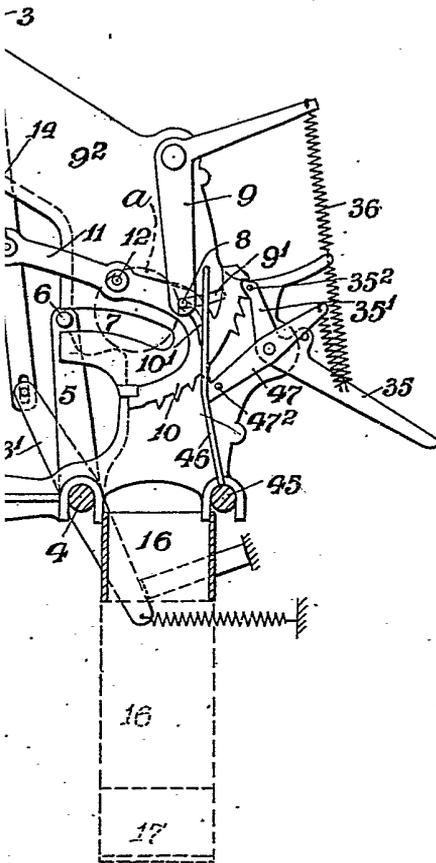
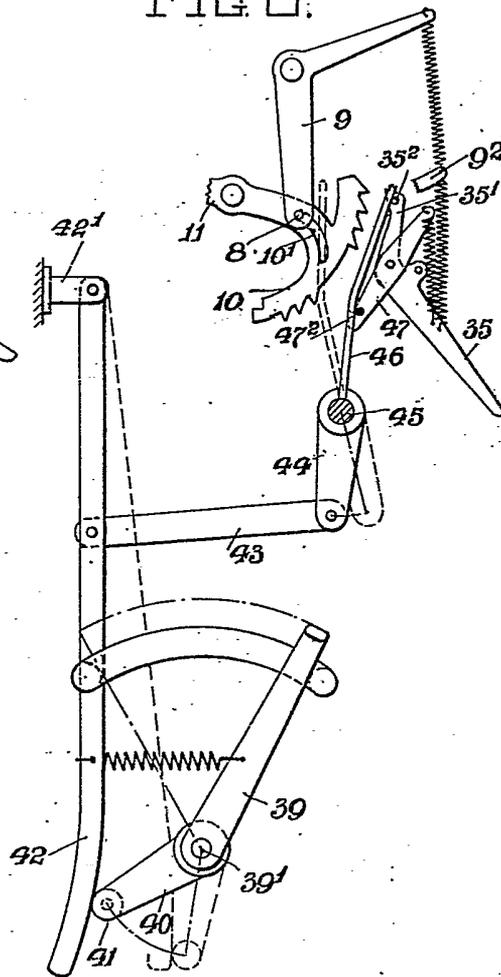


FIG. 6.



[This Drawing is a reproduction of the Original on a reduced scale.]

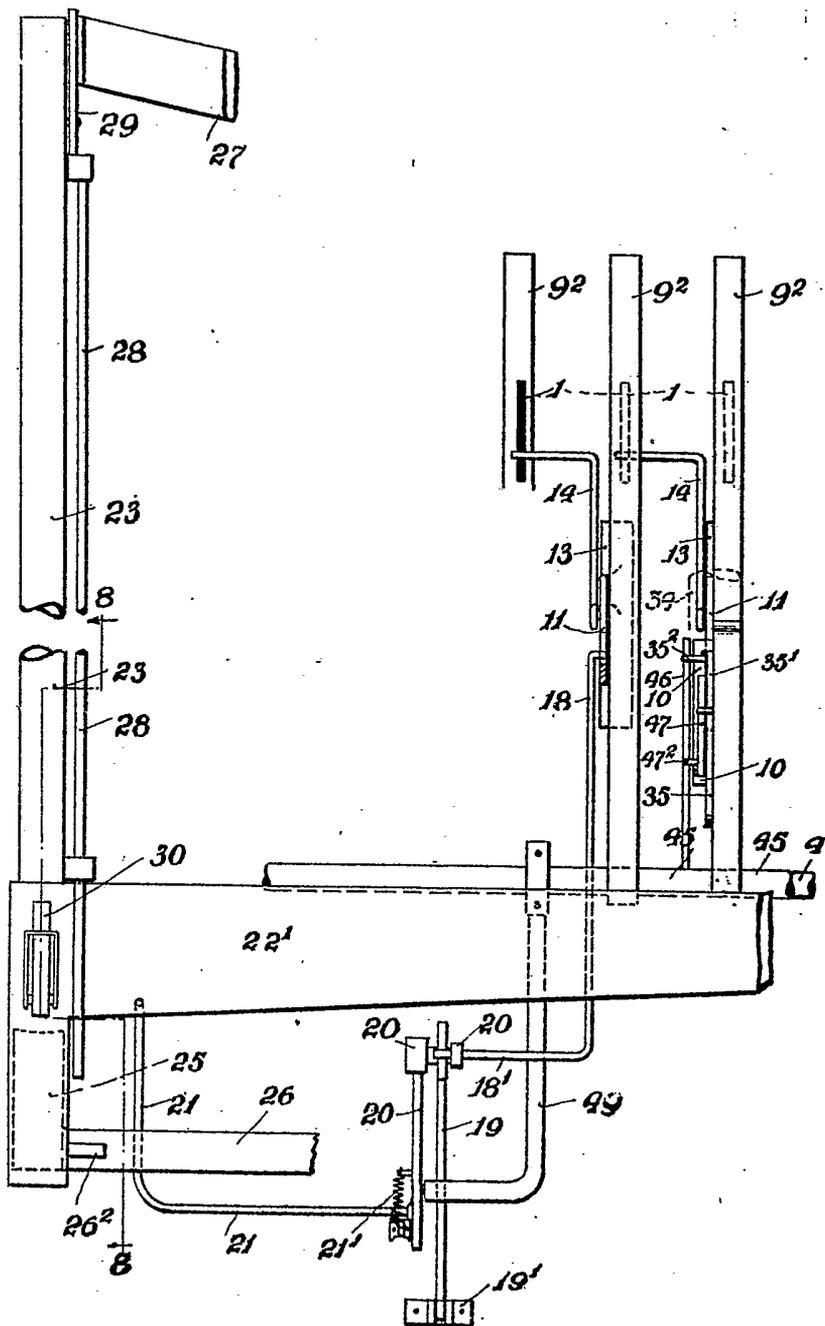


FIG. 7

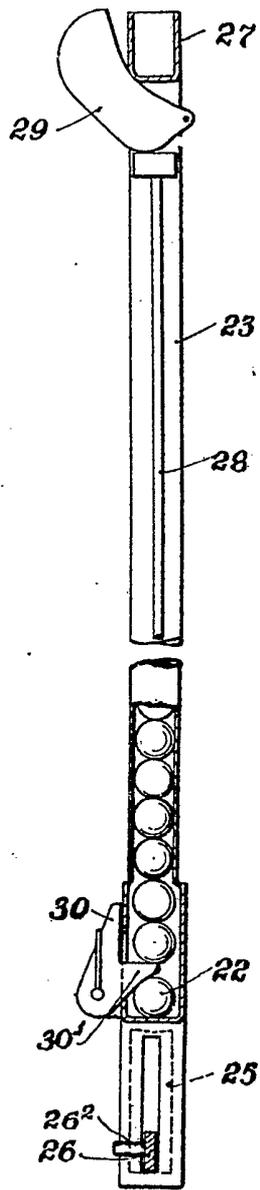


FIG. 8

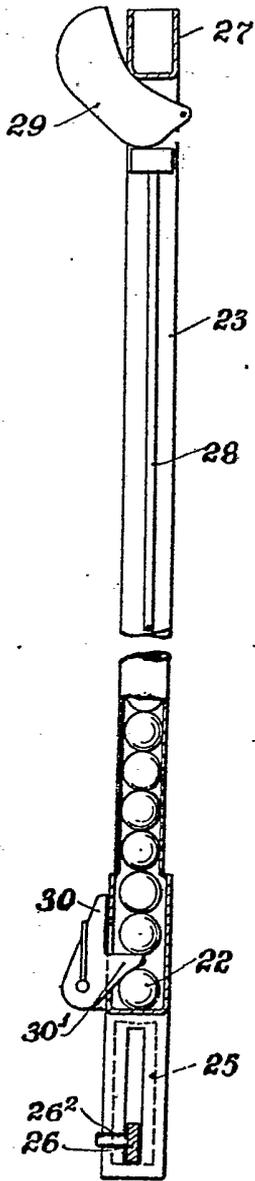


FIG. 8.

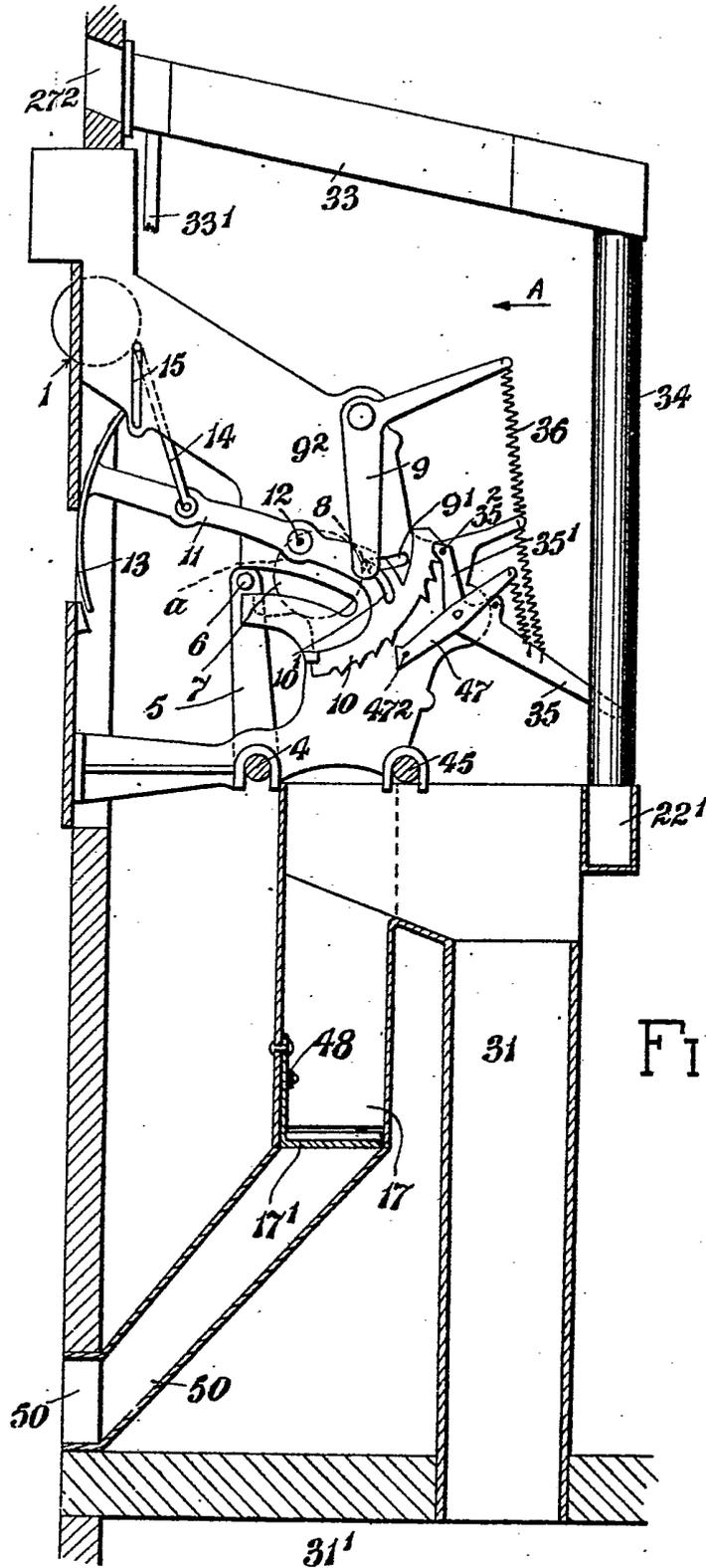


FIG. 9

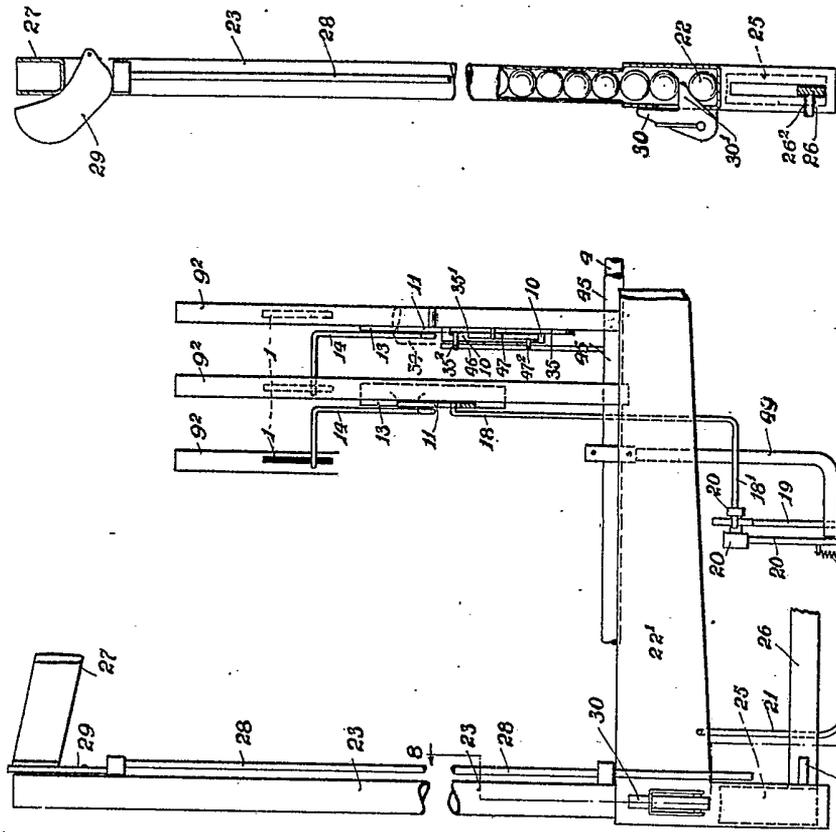


FIG. 7.

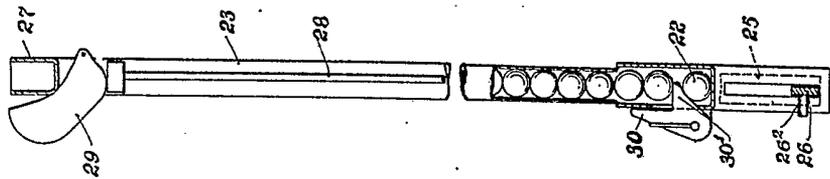


FIG. 8.

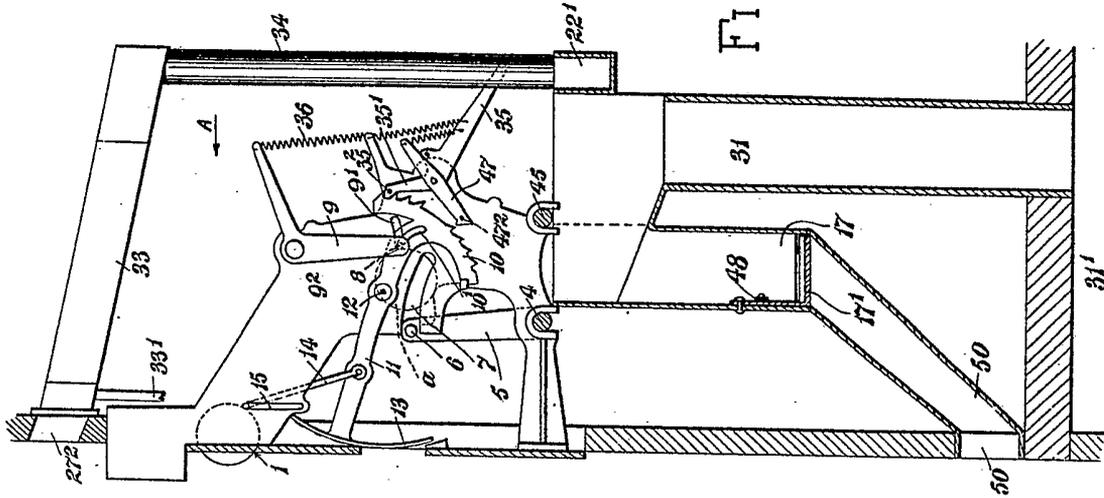


FIG. 9.

[This Drawing is a reproduction of the Original on a reduced scale]