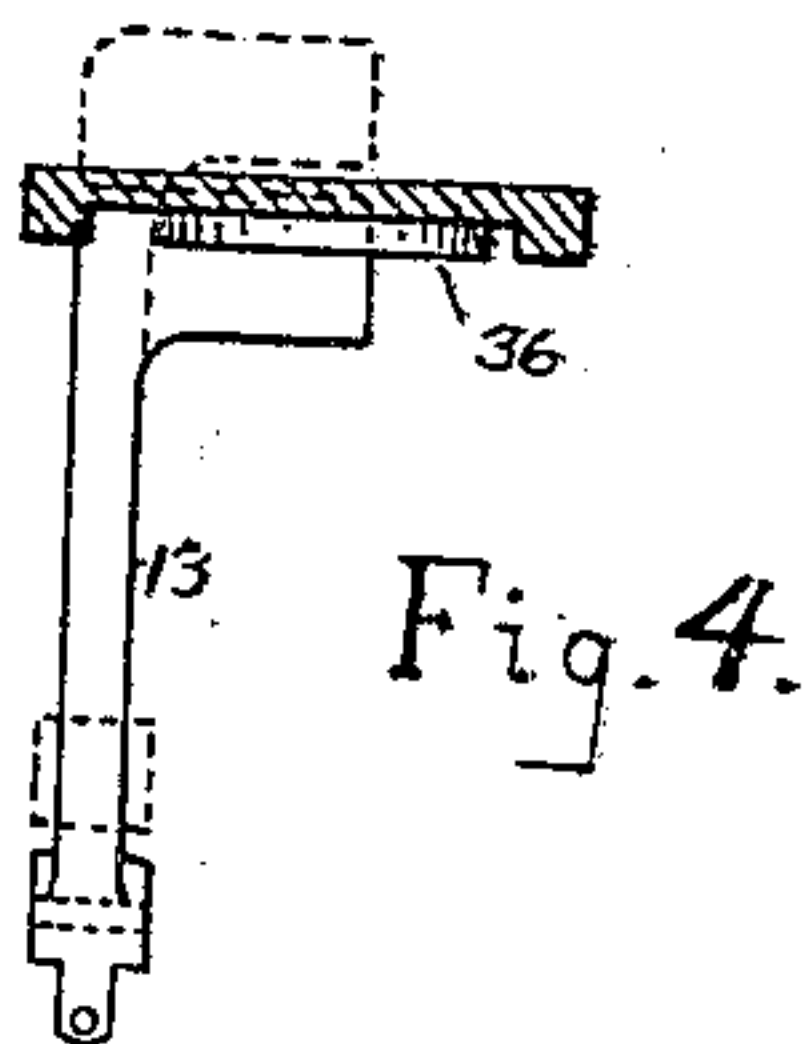
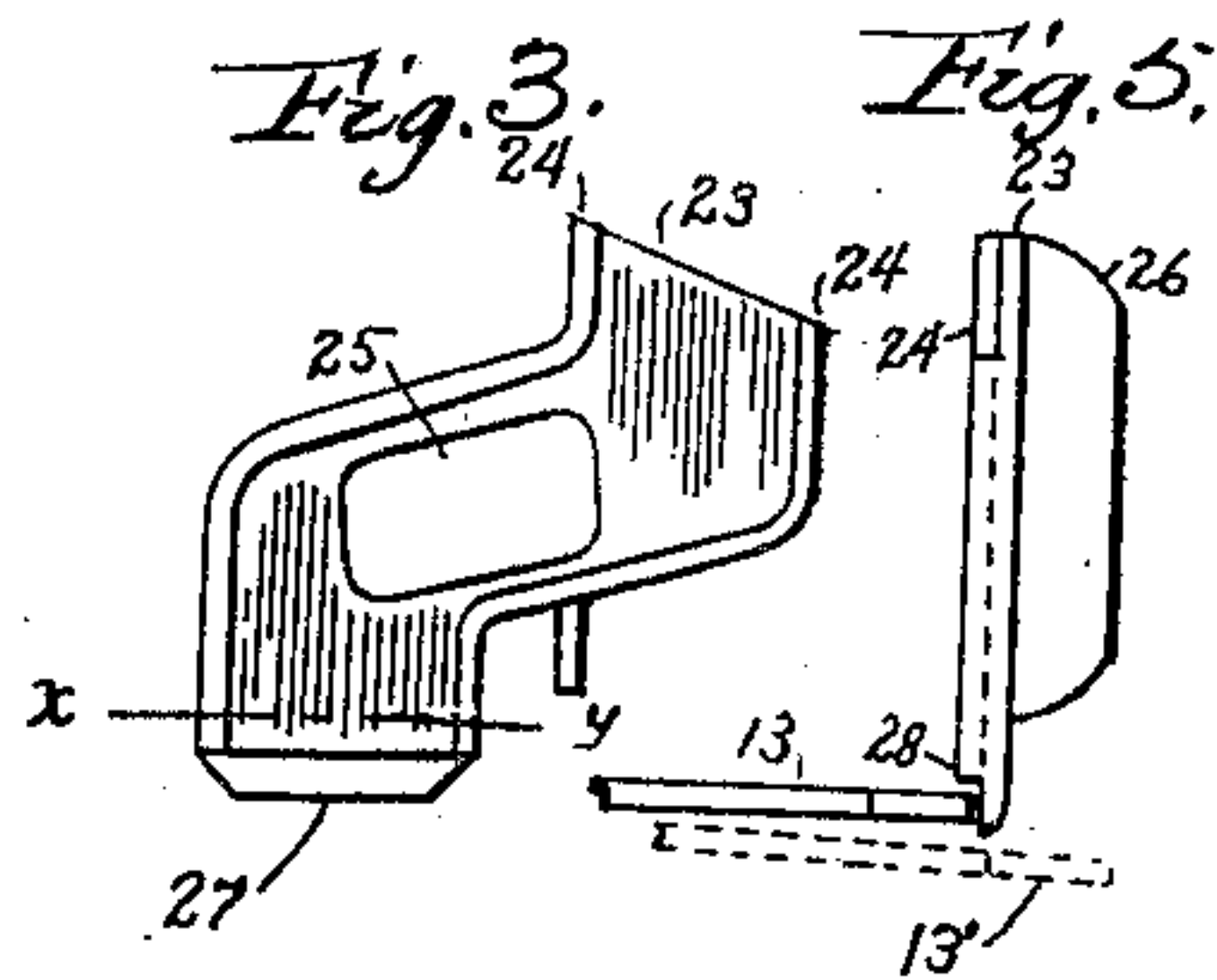
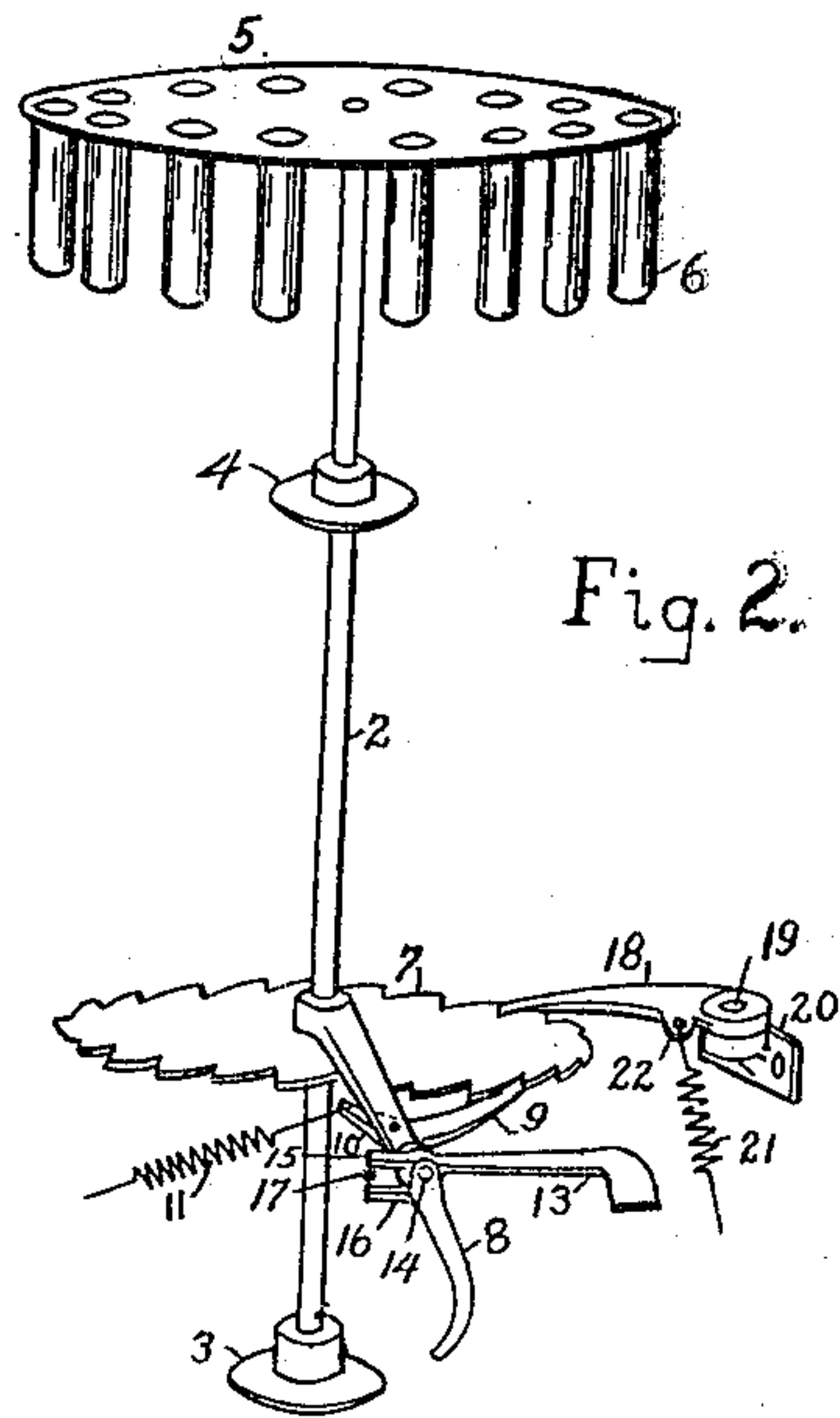
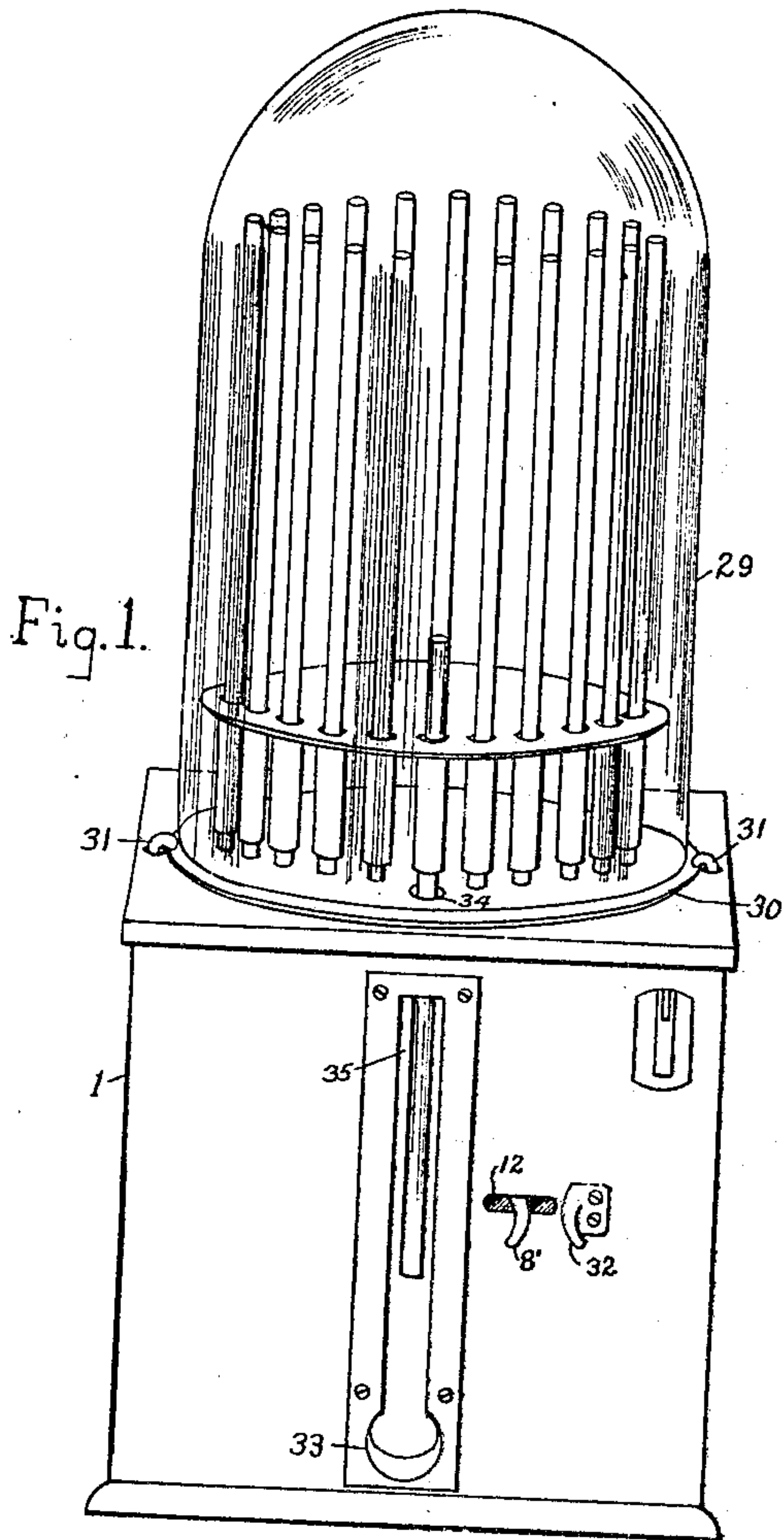


No. 830,815.

PATENTED SEPT. 11, 1906.

R. ZIEBELL.  
VENDING MACHINE.  
APPLICATION FILED JAN. 23, 1905.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ROBERT ZIEBELL, OF OSHKOSH, WISCONSIN.

## VENDING-MACHINE.

No. 830,815.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed January 23, 1905. Serial No. 242,309.

*To all whom it may concern:*

Be it known that I, ROBERT ZIEBELL, a citizen of the United States, residing in the city of Oshkosh, in the county of Winnebago and the State of Wisconsin, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to a certain new and useful improvements for vending-machines, and is particularly adapted to machines for vending lead-pencils, and has for its object the construction of a simple device and one that will have a neat appearance. This object I accomplish by means of mechanism illustrated in the accompanying drawings and more particularly pointed out in the claim.

In the drawings, Figure 1 represents a general outside view of the complete machine. Fig. 2 shows the construction of the operating mechanism and also the compartment-wheel for holding the articles to be vended. Fig. 3 represents a side view of the coin-chute. Fig. 4 is a section of the coin-chute, taken through the line *x y*, Fig. 3, and also a top view of the tongue for catching the coin. Fig. 5 is an edge view of the coin-chute, showing the relation of the tongue or lever to same.

Similar figures represent similar parts throughout the several views.

The numeral 1 represents the box or case containing the operating mechanism and constructed, as shown, with top, bottom, and three sides and has a detachable door on the rear. (Not shown.) At about the center of the box or case 1 is mounted a vertical shaft 2 in bearings 3 and 4, bearing 3 being a foot at the end of the shaft 2, the said shaft resting therein. The lower bearing is secured at the bottom of the case 1, and the upper bearing 4 is secured at the top of the case. At the top of the shaft 2 and secured thereto is a compartment-wheel or a device for containing the articles to be vended, 5, constructed as shown. The disk part is formed of sheet metal and has a number of concentric holes arranged around near its periphery, the said holes being fitted with short tubes 6 of suitable length. About midway in the case 1, mounted rigidly on a vertical shaft 2, is a notched disk 7, having a number of notches

equal to the number of tubes in the compartment-wheel 5, the notches in the said disk 7 being of the form of ratchet-teeth, as shown in the drawings.

8 is a lever fulcrumed on the shaft 2 and of sufficient length to extend out through the side of the case 1 and having its end bent to form a suitable handle. A pawl or dog 9 is pivoted to the lever 8 at 10 and is of the form of a bell-crank lever, one end being formed to fit the notches in the disk 7, and the other or short end having a hook or eye formed thereon, an extension-spring 11 being provided to normally hold the pawl or dog 9 in contact or in engagement with the ratchet-disk 7, the said spring having one end connected to the said hook or eye in the part 9 and the other end secured to a convenient place on the inner wall of the case 1. It is obvious that while the spring 11 is holding the part 9 in contact with the wheel 7 it is also holding the lever 8 back against the end of the slot 12 in the case 1, thereby performing two functions. A tongue 13, having the end bent or formed over to form a lip and a hole drilled through parallel with the lip, but near the opposite end. This tongue is pivoted to the lever 8 by means of the said drilled hole. The tongue has the extending lug 15 with a small hole therethrough. The lever 8 has a lug 16 attached thereto and arranged directly under the lug 15. A spring 17 is provided to connect the two said lugs to normally draw them together, which will raise the other end of the tongue 13. The other dog or pawl 18 is pivoted at 19 to the bracket 20, the said bracket being fastened to a suitable place on the inner wall of case 1. The pawl 18 is formed so that its end will engage the notches on the wheel 7 and is of suitable length to hold the wheel 7 in the proper position with relation to the pawl 9. The spring 21 is provided to normally hold the pawl 18 in contact or engagement with the notched wheel 7, it having one end attached at 22 and the other end attached to a suitable point on the inner wall of the case 1.

The coin-chute (best shown in Fig. 3) is preferably made from a casting of the form shown, with the side piece 23 and the ridges 24, the said ridges being far enough from each other to admit a coin of desired size and to guide it downward a short distance and



then off on an angle and thence downward, thereby making it impossible to reach in with an object to operate the machine without the coin. Another plate or casting (not shown) 5 is provided to cover the side of the chute and is the same shape and is held against the side by a suitable means, thereby covering the chute on all sides, so that the coin must pass through the whole length of the chute on its 10 travel downward. The ridges 24 are made slightly wider apart than the width of the coin to be used, so the coin will slide down without friction from the sides or edges of the chute. A portion of the side of the chute, as 15 shown at 25, is cut away to leave an opening slightly smaller than the coin to be used for the purpose of making the exit for any smaller coin that might be used, which may fall through the opening instead of traveling 20 the entire length of the chute. The chute may be slightly tipped when in position, so that the smaller objects would easily fall through the opening 25, while the proper size would pass by the opening and travel through 25 the whole length of the chute. A flange 26, which forms part of the side of the chute, is provided for the purpose of fastening the chute to the case 1. One side of the chute 30 extends downward a short distance, as shown at 27. The tongue 13 when in normal position has its end resting upward against the ridges 24, as shown at 28, the side of the chute 27 extending slightly below the end of the tongue 13, which locks the whole mechanism 35 against being operated while in that position. The dotted line 13' shows the tongue 13 lower down and at the farthest end of its travel.

In the assembled machine a glass globe 29 40 of suitable size and having a flange 30 at its lower end is provided to cover the articles contained in the compartment-wheel 5. The globe is fastened to the top of the case 1 by means of hooks 31, having nuts on their inner 45 sides which can be fastened from the inside of the case only.

The end of the lever 8 is shown extending from the case 1 at 8', and hook 32 is secured to the outside of the case, as shown, and is 50 provided to make a convenient finger-piece and is of the same shape and form as the extending end 8'.

The pocket 33, of suitable form, is secured to the front of the case 1 for the purpose of 55 catching the articles as they drop down from the compartment-wheel 5. The hole 34 is provided in the top of case 1 and at the front center and under the path of travel of the tubes 6, the said hole communicating 60 with the pocket 33 through a suitable slide 35, whereby the articles contained in the tubes 6 may slide down through a side hole and into the pocket 33.

Having described the construction of the machine, the operation is as follows: The 65 tubes 6 in the compartment-wheel 5 are filled with lead-pencils or the articles to be vended, the globe 29 fastened onto the case 1 by means of the hooks 31, and the tube directly over the hole 34 is left empty. In order to 70 receive the articles in one of the tubes, a coin is placed into the coin-chute and passes down and rests upon the end of the tongue 13, the top view of the coin in this position being shown at 36, and the weight of said coin is 75 sufficient to overcome the spring 17 and press the tongue 13 downward against a suitable stop. (Not shown.) The lever 8 is now moved in the slot 12 by means of grasping 80 the end 8' and the hook 32 on the outside of the case. This operation causes the pawl 9 to move the notched wheel 7 far enough for the pawl 18 to engage the next notch in rotation. Correspondent movement takes place 85 in the compartment-wheel 5 and brings the next adjacent tube over the hole 34, when the contents of the tube will be deposited in the pocket 33. When the lever 8 is let go, the spring 11 pulls it back against the slot 12 90 ready for the next operation, the pawl 9 at the same time engaging the next adjacent notch while the pawl 18 is holding the wheel stationary. When the tongue 13 is in the position shown at 13', the bent portion which 95 the coin rests on is passed slightly beyond the side of the wall of the coin-chute 23, so that the coin may slide down past the tongue 13, so that when the tongue 13 is back to its normal position it will fly up against the lower end of the ridges 28, making it ready for an- 100 other operation.

While I have described a certain construction, it is obvious that the construction can be materially changed without changing the principle of the invention—as, for instance, 105 the compartment-wheel 5 may be arranged with two or three rows of tubes for containing articles of different grades and the other mechanism may be multiplied to accommodate the operation. 110

It is obvious that if a smaller coin is deposited in the coin-chute it will roll down and through the hole 25 and drop out side- 115 wise without in any way touching the tongue 13, so that it is necessary to use the exact size coin in order to operate the machine.

Having fully described the invention, what I claim, and desire to secure by Letters Patent, is—

In a machine of the class described the 120 combination with a vertically-arranged shaft adapted to rotate in suitable journals, of devices for intermittently rotating the said shaft, the said devices comprising a lever and pawl, a ratchet-wheel secured to the said 125 shaft, a device for locking the said lever

against movement composed of a tongue piv-  
oted to the said lever whereby a movement  
of the said tongue locks or unlocks the said  
lever, of a disk 5 attached to the said shaft  
5 and having a number of tubes or holes ar-  
ranged on its face and near its periphery sub-  
stantially as described.

In testimony whereof I hereby set my  
hand in the presence of two witnesses.

ROBERT ZIEBELL.

Witnesses:

A. W. KIRST,  
WM. GRADY.