

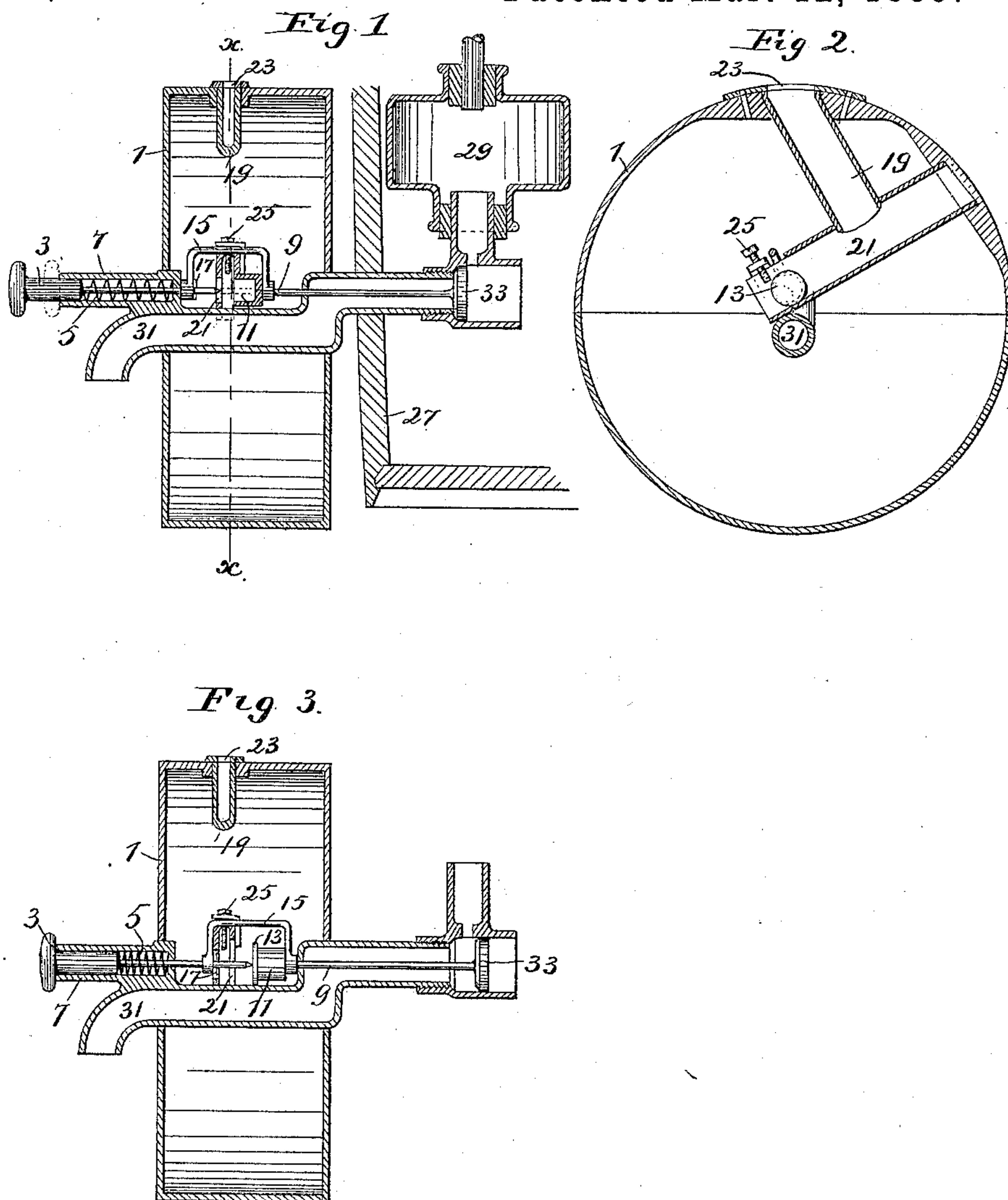
(No Model.)

B. S. MOLYNEUX.

AUTOMATIC COIN OPERATED DEVICE.

No. 399,643.

Patented Mar. 12, 1889.



Witnesses.

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UNITED STATES PATENT OFFICE.

BARTON S. MOLYNEUX, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR, BY DIRECT
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AUTOMATIC COIN-OPERATED DEVICE.

SPECIFICATION forming part of Letters Patent No. 399,643, dated March 12, 1889.

Application filed November 24, 1888. Serial No. 291,760. (No model.)

To all whom it may concern:

Be it known that I, BARTON S. MOLYNEUX, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented new and useful Improvements in Automatic Coin-Operated Devices, of which the following is a specification.

My invention relates to improvements in selling, exhibiting, and other similar devices operated by means of a coin, representing the price or fee which is deposited therein; and it consists, generally, in the arrangement hereinafter described, and particularly pointed out in the claims.

In the drawings my device is shown attached to a liquid-reservoir, and by its valvular connection constitutes an automatic liquid measurer and releaser, but is suitable for any other purpose where the mechanism is to be operated in a similar manner.

In the drawings forming a part of this specification, Figure 1 is a vertical longitudinal section of my device. Fig. 2 is a vertical cross-section on the line $x x$ of Fig. 1. Fig. 3 is a vertical longitudinal section showing the position of parts when operated.

In the drawings, 1 represents a box or case inclosing the device, preferably constructed of cast metal and having its lower portion detachable for the purpose of giving access to the mechanism and removing the coins deposited therein.

3 is a plunger having the spring 5, and sliding freely in the guide or tube 7, which incloses the spring 5.

9 is a rod or shaft, which in the drawings is shown as a valve-stem, to which motion is imparted by means of the plunger in the manner hereinafter described. This rod is fitted preferably with a cup-shaped head or seat, 11, into which the extremity of the plunger is projected when pushed inward, as shown by dotted lines in Fig. 1, when there is no coin in position in the device to make it operative.

Instead of the cup-shaped head the rod 9 may be fitted with suitable prongs or other equivalent attachment, which will serve as a seat or support for the coin 13, and will admit of the same motion of the plunger 3 in the absence of the coin without being itself moved.

15 is a yoke, one arm of which is rigidly secured to the rod 9, the other being fitted with a suitable orifice, through which the plunger 3 freely moves. A stop, 17, is secured to the plunger 3 on the inner side of the yoke, by means of which the plunger, when released and thrown outward by the spring 5, engages the yoke and returns it from the position shown in Fig. 3 to that shown in Fig. 1.

19 is a conduit secured in the case 1, so as to connect with the opening 23 in the top of the case, and is adapted to conduct a coin dropped through the opening to a second conduit, 21, which in turn conducts it to a position between the plunger and the seat 11, where it rests against the stop 25, which holds it in position to receive the plunger 3.

I prefer to use the conduits arranged as described, in order to prevent tampering with the machine, as could readily be done if the conduit were straight from the opening 23 to the exit end of the conduit 21.

27 is a cask or reservoir to which this device is shown applied as a fluid-releaser.

29 is the receiving or measuring tank located in said reservoir and having pipe-connection with the interior of the reservoir and an outlet, 31.

33 is a valve attached to the rod 9, and adapted, when operated by the device as above described, to close the connection between the tank 29 and the reservoir 27, and to open communication between the tank 29 and the outlet-pipe 31.

The mode of operation of my device is as follows, in the connection and adaptation shown in the drawings. The object is to draw into a cup or other receptacle, placed under the outlet-pipe 31, the contents of the tank 29. A suitable coin is dropped into the opening 23, and is carried by the conduits 19 and 21 downward until it strikes the stop 25, by which it is held directly in front of the plunger 3 and between it and the head or seat 11 in the position shown in Fig. 2. The plunger is then pushed inward, strikes the coin and presses it against the seat 11, the motion being transmitted thereto, the valve 33 is opened, communication is established between a tank 29 and the pipe 31 and the contents allowed

to flow out. The tank 29 having been emptied, or the desired amount of fluid having been drawn therefrom, the plunger is released, the spring 5 serving by its tension to throw it outward. The coin 13 being released from pressure between the plunger and the seat 11, falls into the bottom of the case 1, the stop 17 engages the yoke 15, drawing it outward, thus closing the valve. Communication being thus re-established between the tank 29 and the reservoir 27, the tank is again filled from the contents of the reservoir, and another coin may be deposited in the device, and the same operation repeated. The stop 17 is secured to the plunger 3, so as to allow a slight play between it and the arm of the yoke, as shown in Fig. 3. This insures the releasing of the coin when the plunger is relieved of pressure, since the plunger will move away from the coin the distance between the stop and the yoke before the stop engages the yoke and draws it outward. It is therefore impossible for the coin to remain in the device so as to operate the valve more than once.

As shown in Fig. 1, it is absolutely impossible to operate the device without the interposition of the coin, since the plunger, when pressed inward, will enter the cavity in the seat 11, and the valve will not be moved.

I claim as my invention—

1. In a device of the class described, the

combination, with the plunger 3, having the spring 5 and the stop 17, of the rod 9, having the yoke 15, and the seat 11, adapted to receive and support a suitable coin interposed between it and the plunger, by means of which motion is transmitted from said plunger to said rod 9, substantially as described.

2. In a device of the class described, the combination, with a suitable support or case, 1, having a suitable coin-conduit fitted with a suitable stop, 25, of the plunger 3, the yoke 15, and the seat 11, adapted to receive and support a suitable coin interposed between it and the plunger, substantially as described.

3. The combination, with the reservoir and the receiving-chamber, of the valve arranged to control the flow of liquid from said receiving-chamber, the valve-rod provided with a seat having a cavity therein, a plunger provided with a stem adapted to enter the cavity in said seat, a coin-conduit arranged to conduct a coin to a position between said plunger and said seat, and a stop arranged to arrest said coin in such position, substantially as described.

In testimony whereof I have hereunto set my hand this 15th day of November, 1888.

BARTON S. MOLYNEUX.

In presence of—

A. M. GASKILL,
A. C. PAUL.