

No. 753,658.

PATENTED MAR. 1, 1904.

B. R. BEALE & A. E. BAGNALL.

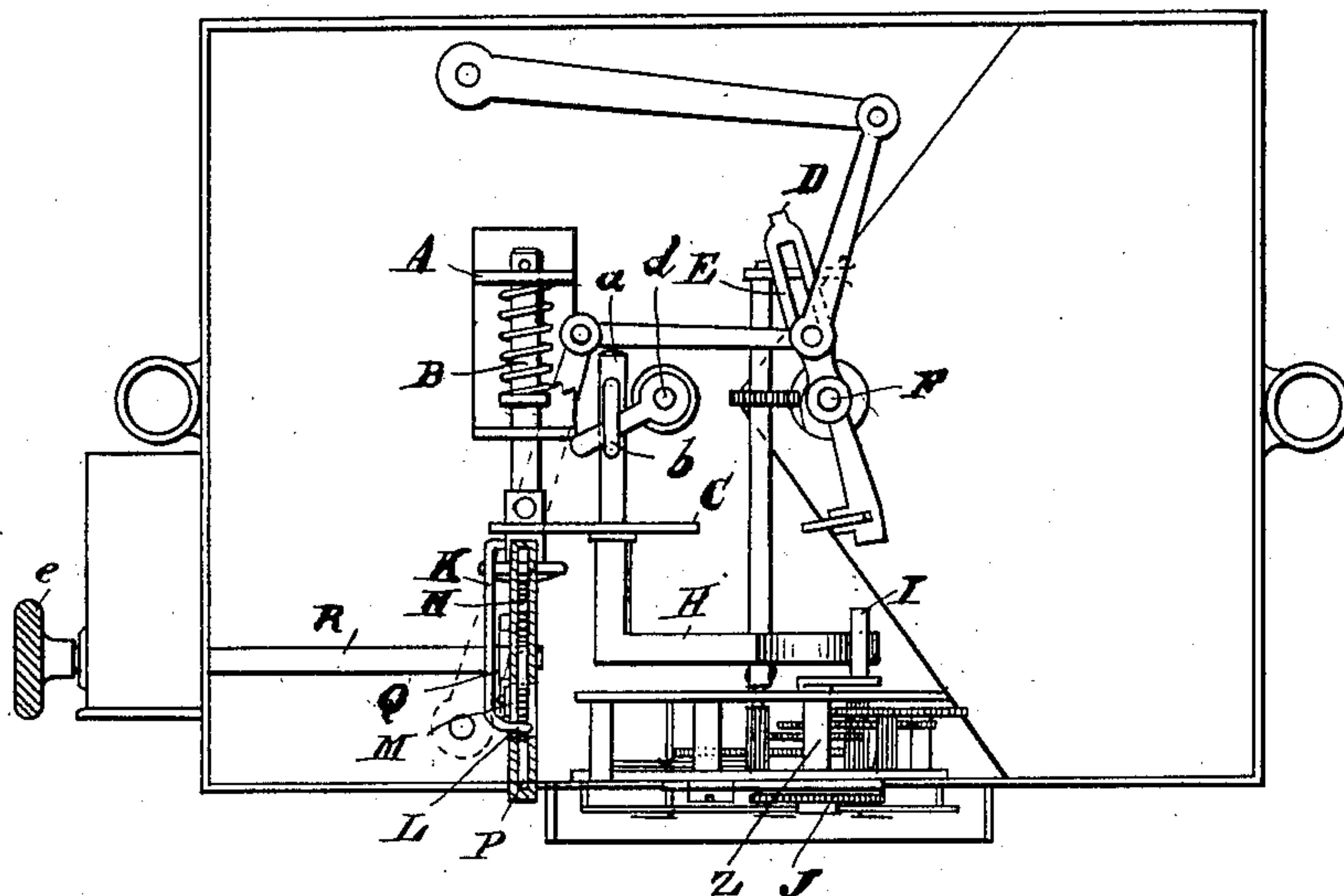
# COIN FREED MECHANISM FOR GAS OR OTHER FLUID METERS.

APPLICATION FILED MAY 18, 1903.

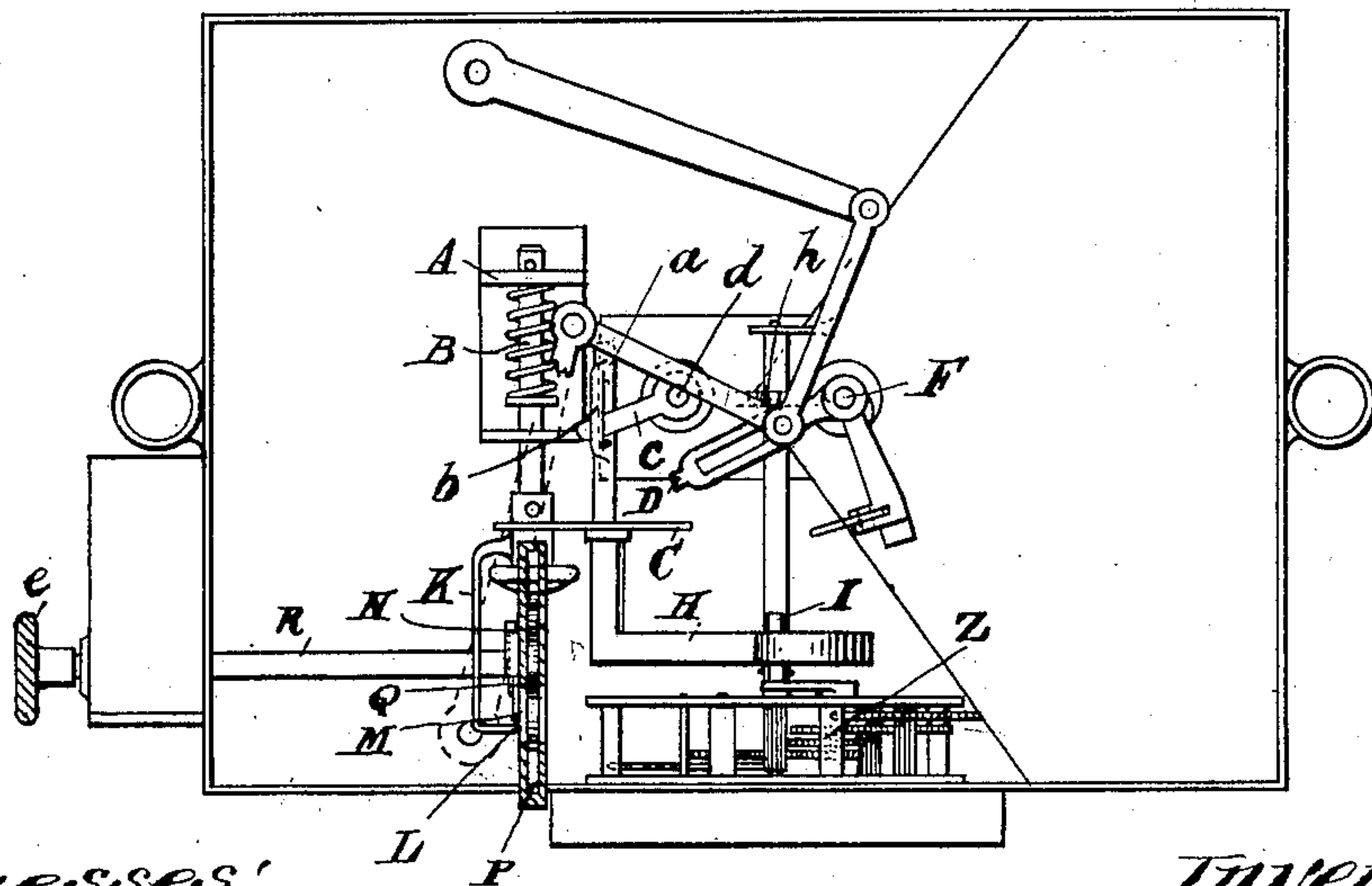
NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



*Fig. 2.*



Witnesses,

James L. Norris, Jr.

SubKedger

*Inventors*

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5764.

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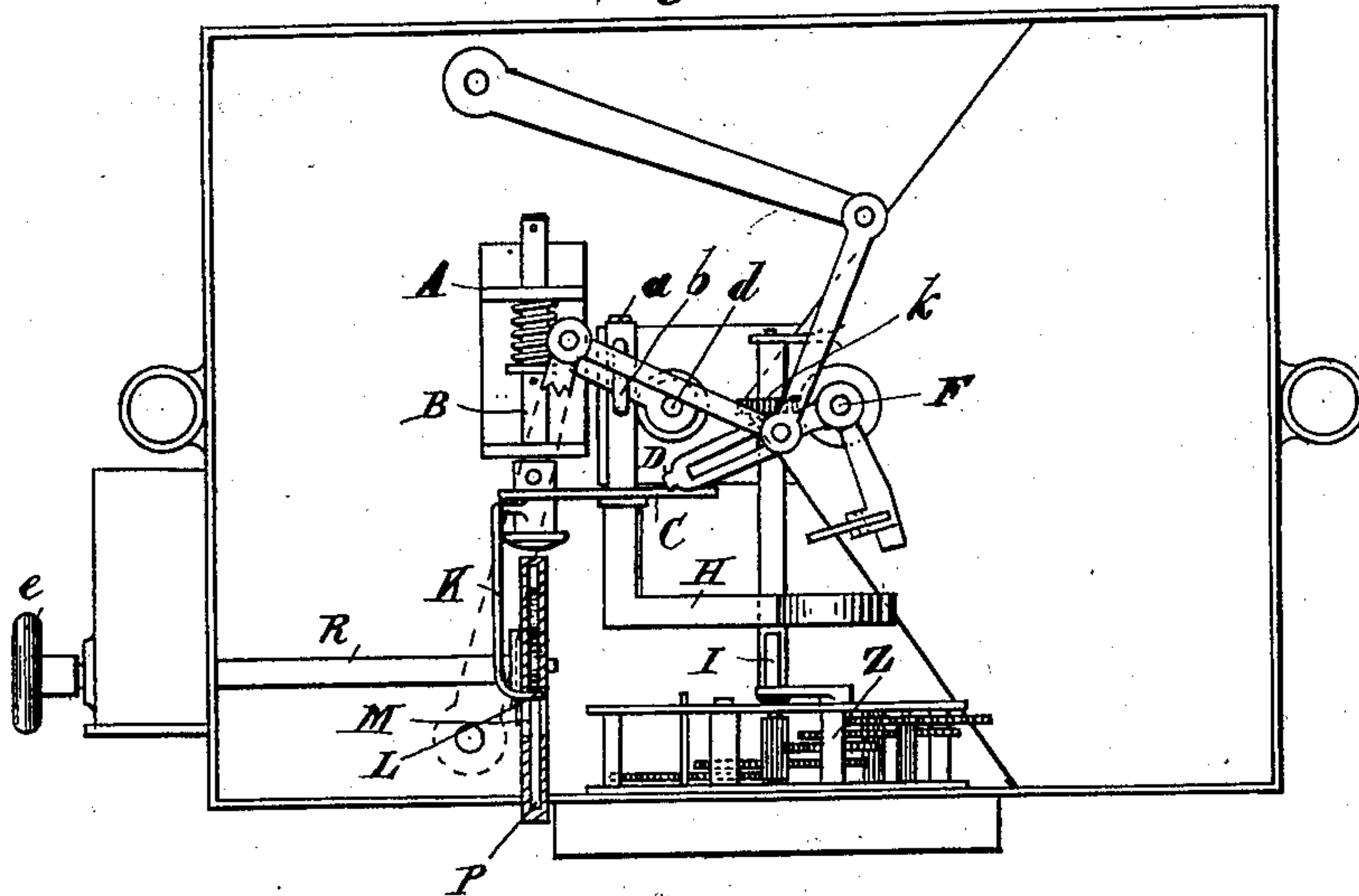
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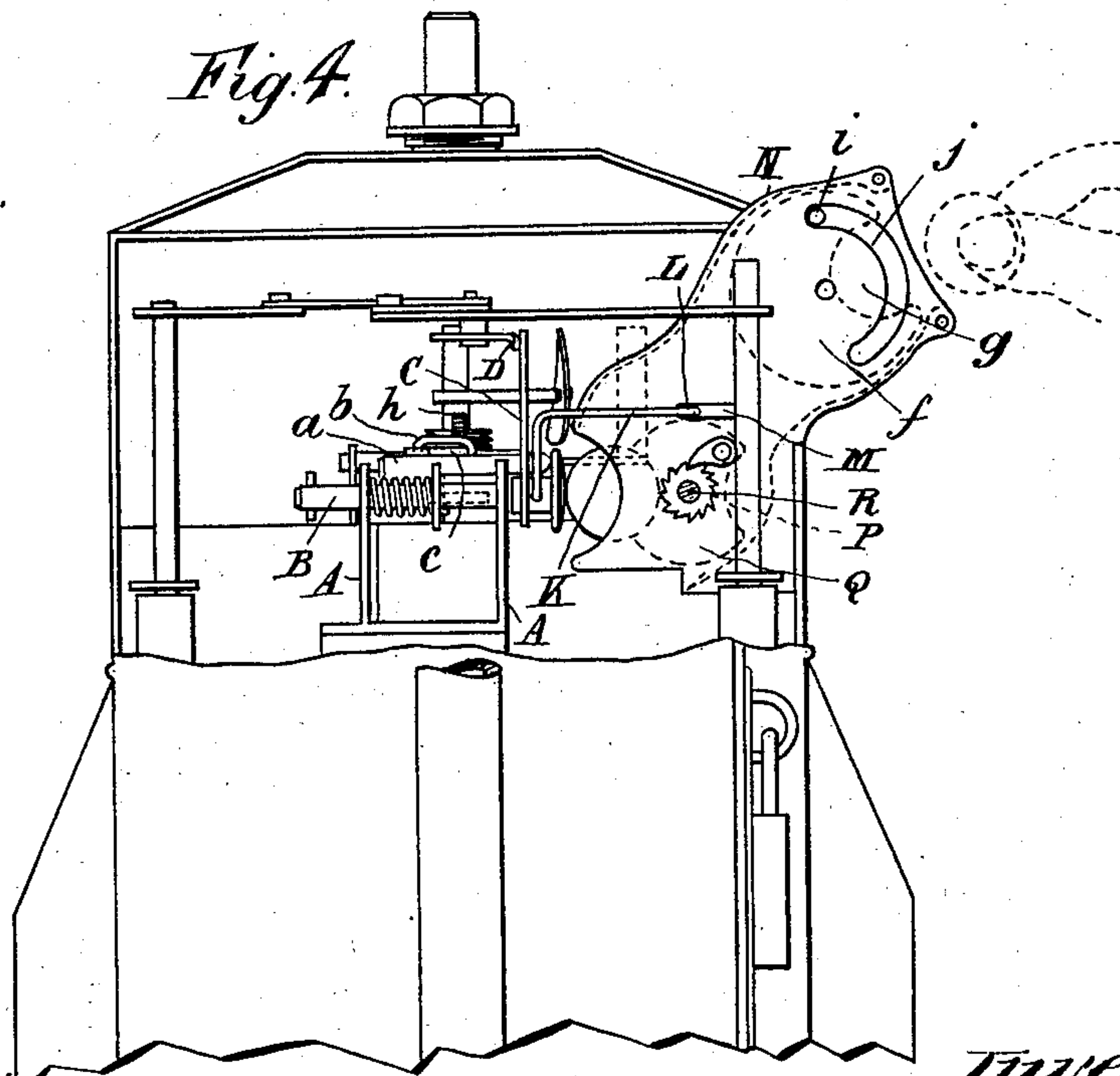
NO MODEL.

2 SHEETS—SHEET 2.

*Fig. 3.*



*Fig. 4.*



Witnesses:

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*J. B. Keefe*

Inventors:

*Bertram R. Beale*  
*Alfred E. Bagnall*  
By *James L. Norris.*  
*Atty.*



# UNITED STATES PATENT OFFICE.

BERTRAM ROBERT BEALE AND ALFRED ERNEST BAGNALL, OF LONDON, ENGLAND.

## COIN-FREED MECHANISM FOR GAS OR OTHER FLUID METERS.

SPECIFICATION forming part of Letters Patent No. 753,658, dated March 1, 1904.

Application filed May 18, 1903. Serial No. 157,668. (No model.)

*To all whom it may concern:*

Be it known that we, BERTRAM ROBERT BEALE, residing at 82 Victoria street, and ALFRED ERNEST BAGNALL, residing at 38 Leadenhall street, London, England, subjects of the King of Great Britain, have invented certain new and useful Improvements in Coin-Freed Mechanism for Gas or other Fluid Meters, of which the following is a specification.

10 This invention has for its object improvements in coin-freed mechanism for gas and other fluid meters, and has reference to a former invention for which British Letters Patent have been granted to us under No. 15 8,820 and dated April 29, 1901, the main feature of our present improvements being the addition of a stop-valve for positively shutting off the flow of gas when the predetermined quantity has been consumed.

20 Our present invention is illustrated in the annexed two sheets of drawings.

Figure 1 is a plan, partly in section and with the cover removed, showing the position of the mechanism when the meter is open and 25 gas being consumed, the coin-chute being shut. Fig. 2 is a similar view showing the relative position of the parts when the gas is shut off, the coin-chute being ready to receive another coin; and Fig. 3, a similar view, shows the 30 position when a knob is being turned for operating the mechanism by means of a predetermined coin for starting the supply. Fig. 4 is a part-sectional side elevation of part of a meter.

35 In our present invention most of the operating parts described and illustrated in the specification and drawings of our former patent above referred to are retained, these parts comprising the standard A, with pivoted rod 40 or axle B, but carrying only two arms—viz., one arm, C, forming a stop for the extension D of the crank E of the usual valves and index-operating spindle F when the crank is in the position indicated in Fig. 3, this arm C hav- 45 ing attached to it another arm or bar, H, which is weighted, acted upon by a crank-pin I on a price-changer wheel J, and the second arm K being bent so that its nose L enters a slot M of the coin-chute N to hold back any

coin which may be inserted therein until the 50 arm or bar H has been lifted in due course by the crank-pin I through the motion of the meter mechanism, the bent nose L being then withdrawn from the slot M by the turning of the axle B to allow another or following coin 55 to enter the pocket P of the disk Q on the revolving axle R, which is operable by the knob e, as described in our former patent.

In our present invention the weighted arm or bar H is provided with an extension a, 60 bearing a loop b, through which passes the arm c of a stop-valve d for shutting off the supply of gas when the weighted arm or bar H has been fully raised by the crank-pin I.

The action of the present mechanism is as 65 follows: When the mechanism is in the position indicated in Fig. 2, the stop-valve has shut off the gas and the coin-pocket P is ready to receive a fresh coin from the chute. The disk Q may then be turned by the knob e and 70 axle R until the coin in the pocket P comes into contact with the sliding pivoted rod B, forcing it back, as in Figs. 3 and 4, this action removing the weighted bar or arm H 75 from the crank-pin I of the index or price changer axle Z, so that the weighted arm H, with its extension a and loop b, can drop, also the stop-valve d to allow the flow of gas to take place and the meter to begin working, 80 a continued turning motion of the coin-disk Q carrying the coin farther round out of contact with the sliding rod B, which is then returned by its spring, the coin falling into the till. Should, however, through inadvertence 85 or intentionally the coin-disk Q be not turned sufficiently for the coin to escape past the sliding rod B, there will be no supply of gas, although the stop-valve be then open, because the arm C will be in the path of the crank extension D of the usual valves and index- 90 operating spindle F, thus arresting the working until the sliding rod B is returned. The weighted bar H is now over the crank-pin I of the index-mechanism axle Z, so that the movement of the index-operating gear h and 95 crank-pin I will gradually raise the weighted arm H and its extension a, so as to lift and shut off the stop-valve d when the pin I has



reached its highest point, thus stopping the supply of gas until a fresh coin falls into the coin-pocket and the disk Q is again turned, as above explained.

5 In Fig. 4 we have shown a coin-receiving and slot-closing device fitted in the coin-chute and consisting of a pivoted disk *f*, with a pocket *g* and carrying a pin *i*, which rides in a circular slot *j* of the coin-chute N, so that  
10 after the insertion of a coin and the rotation of the pivoted disk *f* the latter is locked in the "closed" position by reason of the coin partly falling out of its pocket *g* onto the nose L of the bent wire, thus retaining the  
15 coin in the chute until the bent wire is withdrawn from the slot M, as before explained.

What we claim, and desire to secure by Letters Patent, is—

1. In a coin-freed mechanism for gas and  
20 other fluid meters, the combination with a coin-chute, a valve, a spindle for operating the same and a crank for operating said spindle, of a sliding rod operable on the insertion of a coin in said chute, a pair of arms carried by the  
25 said rod, one of said arms adapted to hold back the coin within the chute and the other

of said arms adapted to arrest the movement of said crank, a weighted bar attached to the arm which arrests the movement of the crank, a stop-valve for controlling the flow of fluid, 30 and mechanism for operating said weighted bar causing thereby the opening and closing of said stop-valve, substantially as herein shown and described.

2. In coin-freed meters for gas and other 35 fluids, a closing device for the coin-receiving slot, said device consisting of a pivoted disk fitted in the coin-chute and having a coin-pocket, so arranged that when said disk is revolved with a coin in its pocket, the coin by 40 falling onto a stop or onto another coin will form a block against the return or further rotation of the disk until the stop is removed or the preceding coin released, as described.

In testimony whereof we have hereunto set 45 our hands in presence of two subscribing witnesses.

BERTRAM ROBERT BEALE.  
ALFRED ERNEST BAGNALL.

Witnesses:

H. D. JAMESON,  
F. L. RAND.