

No. 658,643.

Patented Sept. 25, 1900.

A. HENNING.
GAS METER.

(Application filed Apr. 3, 1900.)

(No Model.)

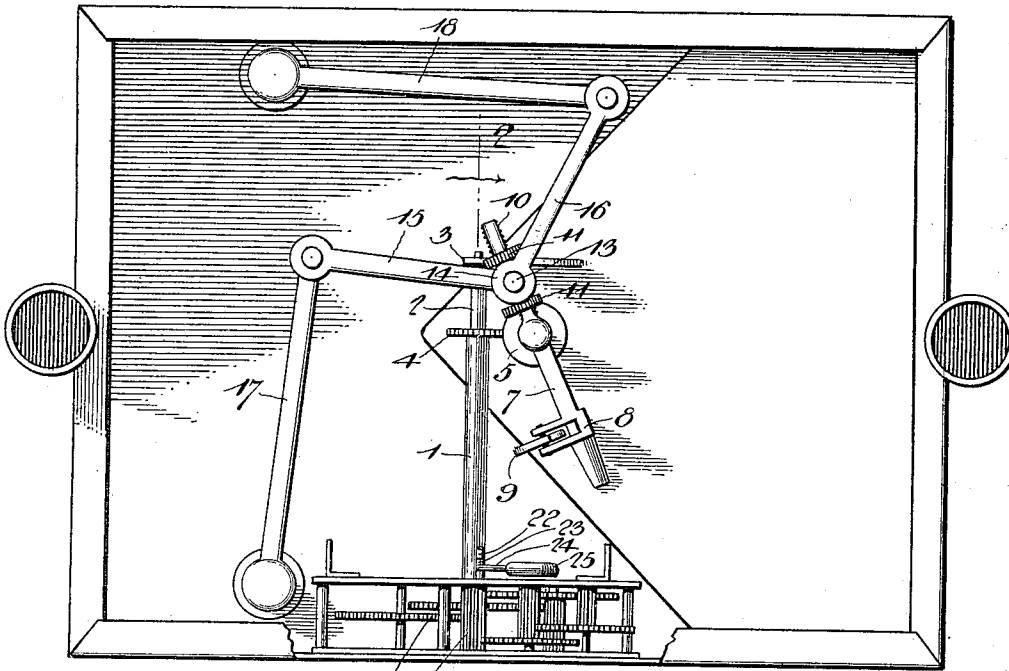


Fig. 1.

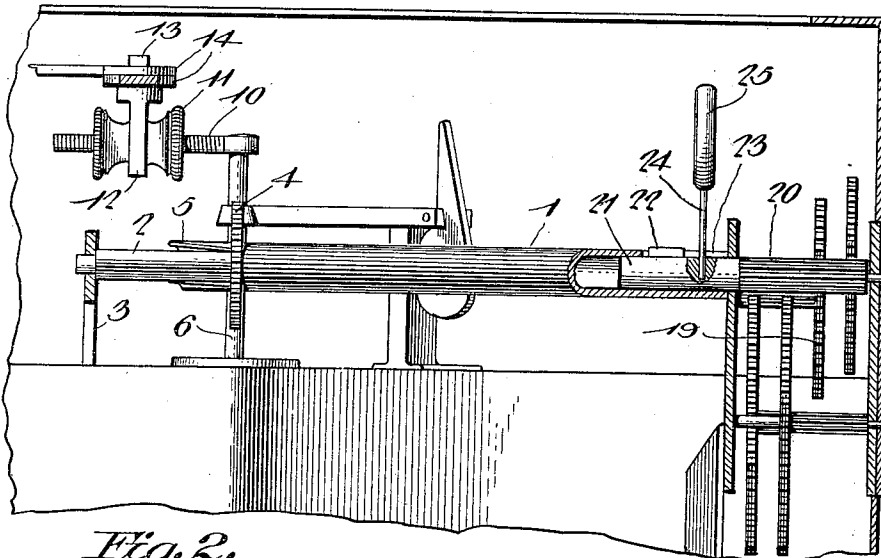


Fig. 2.

Witnesses
J. Frank Leubowell, By His Attorneys.
Chas. S. Hoyer.
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UNITED STATES PATENT OFFICE.

ABEL HENNING, OF COLORADO SPRINGS, COLORADO.

GAS-METER.

SPECIFICATION forming part of Letters Patent No. 658,643, dated September 25, 1900.

Application filed April 3, 1900. Serial No. 11,374. (No model.)

To all whom it may concern:

Be it known that I, ABEL HENNING, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented a new and useful Gas-Meter, of which the following is a specification.

This invention relates to gas-meters, and more particularly to an attachment for a part of the mechanism; and the object of the same is to provide simple and effective means for taking up the lost motion in proving meters. The lost motion in a majority of meters amounts to nearly five per cent., some meters having more and others less; but the general average is about the per cent. stated. To this is added the two per cent. allowed by law in some localities for fast or slow, and this total amount of percentage is against either the gas companies or the consumers. The improved attachment obviates this loss to either party concerned and renders the operation of a gas-meter more equitable and positive.

The invention consists in the construction and arrangement of parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of a gas-meter, showing the cover removed and broken away in part and embodying the improved feature. Fig. 2 is a sectional elevation of a portion of the upper part of a gas-meter, showing the improved attachment.

Similar numerals of reference are employed to indicate corresponding parts in the views.

The numeral 1 designates a horizontal axle, which in this instance is hollow for a greater portion of its length and has attached thereto a bearing-spindle 2, rotatably mounted at its rear extremity in an upwardly-projecting bearing-arm 3. Secured to the axle and spindle is a pinion 4, which meshes with a worm-wheel 5 on a vertical shaft or rod 6, extending downwardly into the meter for a well-understood purpose, and bears in a horizontal member 7 of a king-post 8, which also supports a click 9. From the upper extremity of the shaft or rod 6 a horizontal tangent 10 projects and carries the usual clamps or securing-heads 11 to embrace and hold a pendant 12 at a proper position on the tangent, the said pendant having an upwardly-pro-

jecting bearing-post 13, on which are rotatably mounted the bearing-eyes 14 of arms 15 and 16, the said arms being movably connected at their opposite extremities to the terminals of fulcrum-arms 17 and 18, respectively. The said fulcrum-arms 17 and 18 are attached in the usual manner, and the devices thus far described are all well known in the art to which this invention pertains and form no part of the improvement, it being understood that said well-known devices operate an index 19, which has a well-known use.

Connected to an elongated controlling-gear 20 of the index and extended rearwardly therefrom is a cylindrical supporting-arm 21, which is provided with a key 22, and the said arm is fitted in the adjacent end of the axle 1 with the key 22 in a longitudinal slot 23 in said axle and opening out through the front end of the latter. Secured to the arm 21 is a stem 24, projecting through the slot 23 and having a direction in a plane at right angles to the said arm and provided with a weight 25 at its opposite extremity. As the axle 1 is revolved through the operation of the shaft or rod 6 and the intermediate gearing set forth the arm 21 and the controlling-gear 20 are simultaneously operated, and the stem 24 and weight 25 also regularly rotate and take up the lost motion hereinbefore referred to, the said supporting-arm and key thereon fitting in the axle with sufficient looseness to permit the stem and weight to have slight play. The stem 24 rests against one wall of the slot 22 during one half the revolution of the axle and against the opposite wall of said slot during the remaining half of the revolution. A test is never made by half the rotation of the axle, but always by a complete revolution of the latter, which should make a complete revolution of the testing-hand. Therefore it will be observed that when the revolution is made the weight-arm is always resting on the same side of the slot that it was on when it started. Thus the lost motion is taken up and the mechanism rendered more positive in operation. The addition of the weight will overcome the disadvantages heretofore encountered in proving meters, and in view of the simplicity of the construction it is possible to apply the improved device to meters now in use without material cost and with

great saving to the gas companies or consumers. The dimension of the weight 25 is such as to equalize or compensate for the usual amount of lost motion, and in some applications it will be necessary to change the size, proportions, and minor details of construction, and these changes will be resorted to without departing from the principle of the invention.

10 Having thus described the invention, what is claimed as new is—

In a gas-meter, the combination with an index having a main controlling-gear and mechanism in connection therewith, the said gear
15 having a cylindrical supporting-arm provided

with a key, a tubular axle having an open end to fit over the said arm and a slot to receive said key, and a stem projecting through the slot of the axle and secured to said arm, the stem being fixed to the latter in a plane at right angles thereto and having a weight on its outer free end. 20

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ABEL HENNING.

Witnesses:

JOHN MCKNIGHT,
W. A. MCWHORTER.