(No Model.) 2 Sheets—Sheet 1.

C. N. DUTTON.

REGISTER CASING FOR FLUID METERS.

No. 441,095. Patented Nov. 18, 1890.

FIG. 2.

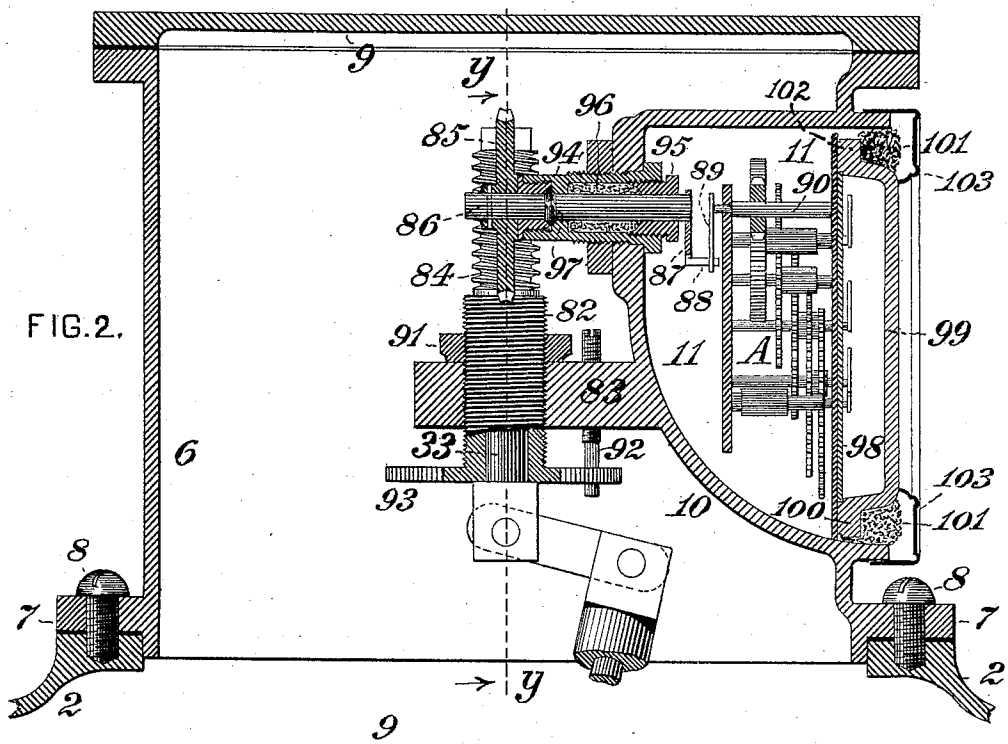
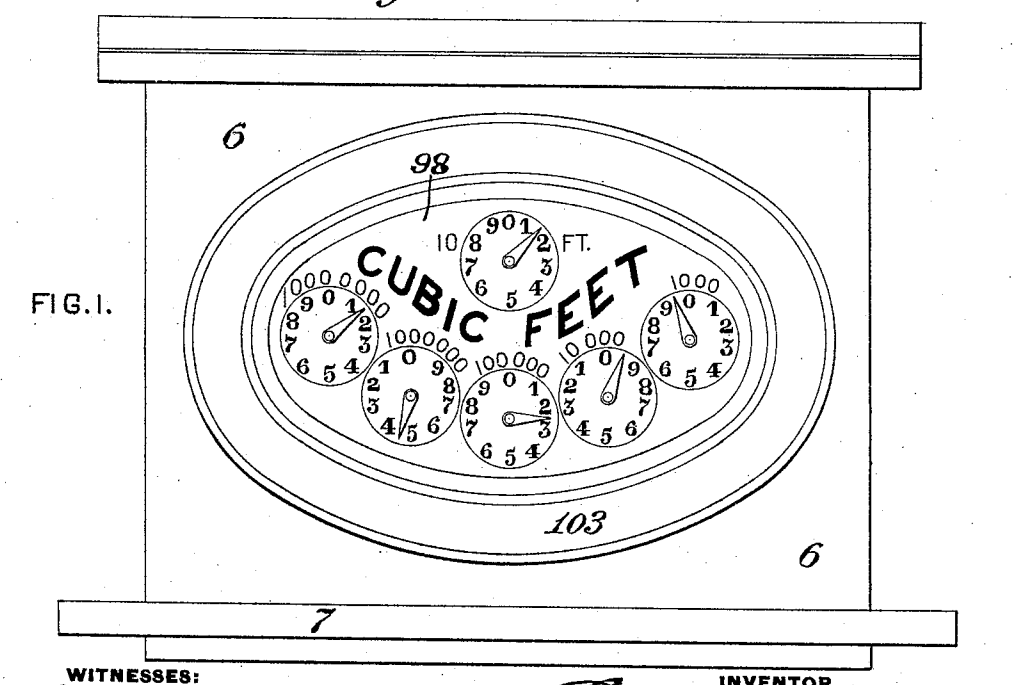


FIG. 1.



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(No Model.) 2 Sheets—Sheet 2.

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FIG. 3.

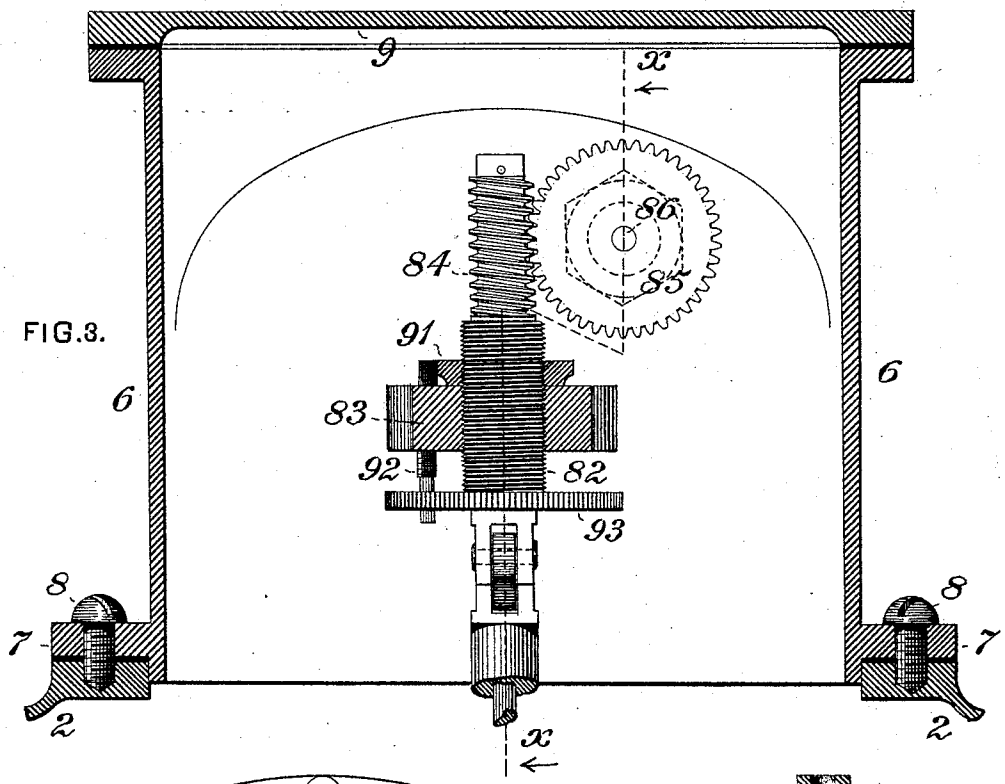


FIG. 4.

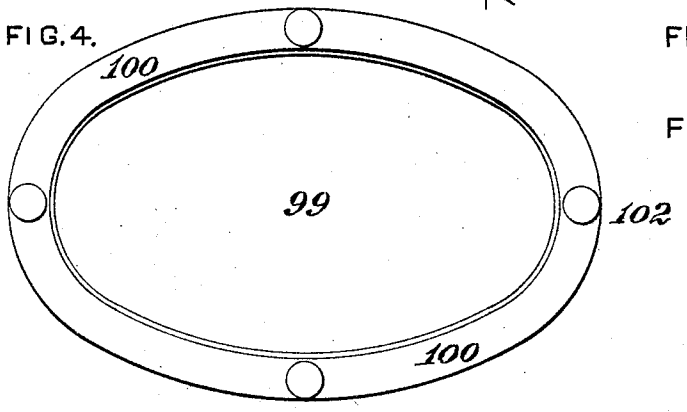
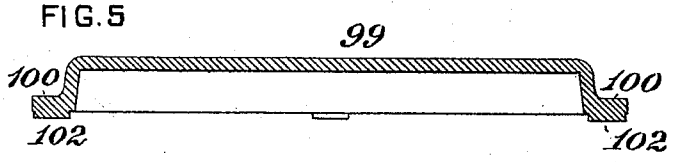


FIG. 6.  96

FIG. 7.  96

FIG. 5



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UNITED STATES PATENT OFFICE.

CHAUNCEY N. DUTTON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE FUEL GAS AND MANUFACTURING COMPANY, OF SAME PLACE.

REGISTER-CASING FOR FLUID-METERS.

SPECIFICATION forming part of Letters Patent No. 441,095, dated November 18, 1890.

Application filed September 2, 1889. Serial No. 322,754. (No model.)

To all whom it may concern:

Be it known that I, CHAUNCEY N. DUTTON, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Register-Casings for Fluid-Meters, of which improvement the following is a specification.

The object of my invention is to provide an inclosing-casing for the registering mechanism of a fluid-meter which shall embody the features of simplicity, compactness, facility of connection of the registering mechanism with an actuating member of the measuring mechanism of the meter, and prevention of leakage of fluid from the interior of the meter-case.

To this end my invention consists in certain novel devices and combinations hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a front view in elevation of a register-casing embodying my invention; Fig. 2, a vertical section through the same at the line *x x* of Fig. 3; Fig. 3, a similar section at the line *y y* of Fig. 2; Fig. 4, a rear view in elevation of the glass face-plate; Fig. 5, a longitudinal central section through the same; Fig. 6, a similar section through the packing-tube, and Fig. 7 an end view of the same.

In the practice of my invention I provide a tubular register box or casing 6, having a flange 7 around its open lower end, through which passes a series of bolts 8, by which it is secured to the top of the case 2, which incloses the measuring mechanism of a fluid-meter, and having its upper end closed by a cap or cover 9, to which the outlet-pipe of the meter may be connected. The shell of the register-casing is extended inwardly on one side to form the inner wall 10 of a chamber 11, which serves as a receptacle for a registering mechanism A, which may be of any suitable and preferred construction, and which not constituting in and of itself any part of my present invention, need not be herein at length described. The registering mechanism is actuated from a shaft which is connected with and rotated by the measuring mechanism of the meter, in this instance a vertical shaft 33, which is journaled centrally in an adjustable bearing 82, supported in a bracket 83, formed integral with the inner wall 10 of the register-chamber 11. The bearing 82 is provided with an external thread engaging a corresponding thread in the bracket 83, and is held in adjusted position by a lock-nut 91 and a screw 92, engaging a thread on the bracket and adapted to enter any one of a series of holes in a disk 93, fixed upon the lower end of the bearing 82. The shaft 33 carries above the bearing 82 a worm 84, engaging a worm-wheel 85, fixed upon a horizontal shaft 86, journaled in the wall 10 of the register-chamber, and provided with a crank-arm 87 on its end within said chamber, the pin 88 of which crank-arm engages a slot in a crank 89 on the first-motion shaft 90 of the registering mechanism A.

The above construction and relation of the driving-shaft, bearing, and registering mechanism are similar to those set forth in my application, Serial No. 321,262, filed August 19, 1889, and these features do not form part of my present invention.

The worm-wheel shaft 86 is journaled in bearings in a stuffing-box 94, fixed in the wall 10 and having a gland 95, which serves to compress a packing-tube 96, of felt or similar material, around the shaft 86 and prevent leakage of fluid from the meter-casing into the register-chamber 11. In order to provide additional facilities for insuring a tight joint, a conical shoulder 97 is formed upon the shaft 86 and is held closely to a corresponding seat in the stuffing-box 94 by the longitudinal pressure on the shaft 86 induced by the engagement of the worm 84 and worm-wheel 85.

A dial-plate 98, having a suitable series of registering-dials, is located in the outer portion of the register-chamber 11, and the front of said chamber is closed by a glass face-plate 99, provided with a peripheral flange 100, which, in connection with the wall of the chamber 11, forms an annular groove for the reception of a cement packing 101, which serves to prevent the escape of any gas which may leak from the meter-casing through the stuffing-box 94. The flange 100 is provided

on its inner face with feet 102, through which the face-plate bears against the dial-plate, and is thereby held clear of projections thereon.

To admit of the proper and prominent indication of the manufacturer's name, serial number, and class number of the meter, as well as to secure the face-plate 99 in position, I provide a sheet-metal name-plate 103, which is stamped into annular form, corresponding with that of the ring of packing 101 and of beaded channel-section, covering said packing-ring and fitting against the outside of the face-plate 99 and of the projecting portion of the shell of the meter-casing which surrounds the packing-ring. The manufacturer's name and numbers are stamped upon the front of the name-plate 103, so as to be plainly and prominently presented to an observer, but are not shown on the drawings to avoid possible objection to a correct representation on the ground that the same would constitute an "advertisement" and would infringe the rule of the office prohibiting the same.

I claim as my invention and desire to secure by Letters Patent—

1. In a register-casing for fluid-meters, the combination of a shell which is inwardly extended on one side to form a register-chamber, a glass face-plate closing the front of said chamber, a packing-ring closing the joint between the face-plate and shell of the casing, and an annular name-plate covering said packing-ring and fitting against the face-plate and shell, substantially as set forth.

2. The combination of a box or casing adapted to be secured upon the casing of a fluid-meter and inwardly extended on one side to form a register-chamber, a glass face-plate closing the front of said chamber, a registering mechanism mounted in said chamber, a stuffing-box fixed in the inner wall of said chamber, a shaft journaled in bearings in said chamber and transmitting movement from the measuring mechanism of the meter to the registering mechanism, and a conical shoulder fixed upon said shaft and bearing against a corresponding face on the stuffing-box, substantially as set forth.

3. The combination of a register-chamber, a peripherally-flanged glass face-plate closing the front of said chamber, a ring of packing fitting the annular space between the flange of the face-plate and the shell of the chamber, and an annular name-plate of channel-section covering said packing-ring and bearing on its inner edge against the face-plate and at its outer edge against the shell of the chamber, substantially as set forth.

In testimony whereof I have hereunto set my hand.

CHAUNCEY N. DUTTON.

Witnesses:

J. SNOWDEN BELL,

WILLIAM BEAL.