A. J. POCOCK.

CASING FOR MEASURING PUMPS.

APPLICATION FILED NOV. 15, 1916.

1,275,595.

Patented Aug. 13, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

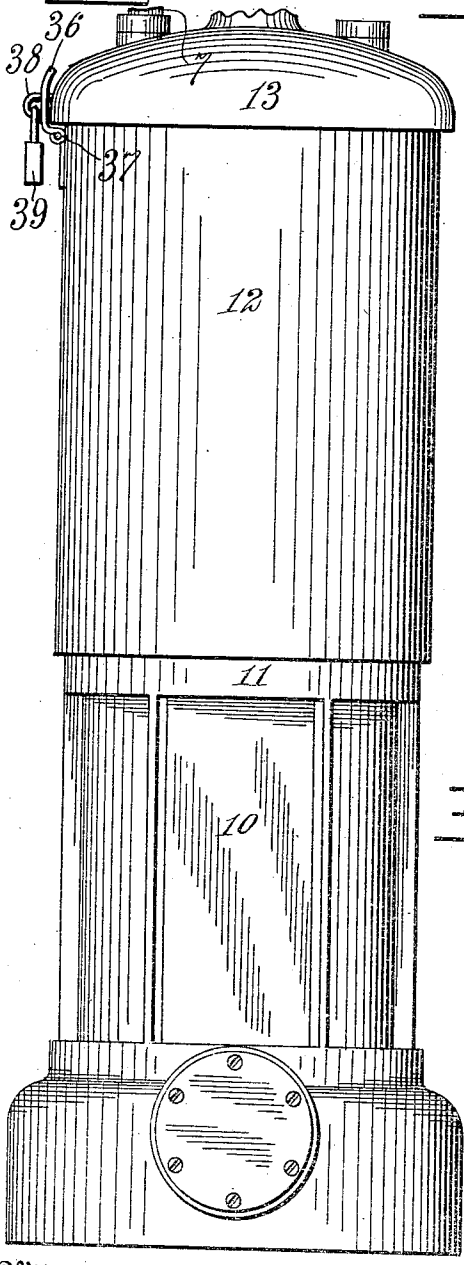
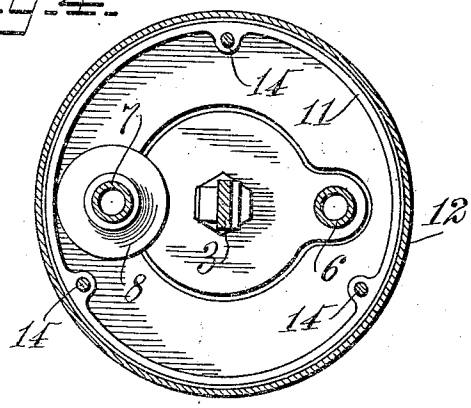


Fig. 4.



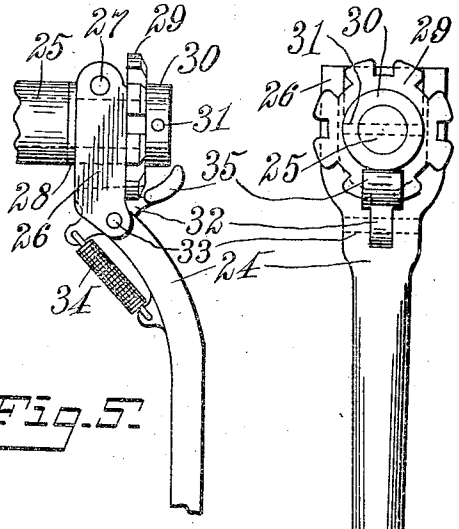


Fig. 5.

Fig. 6.

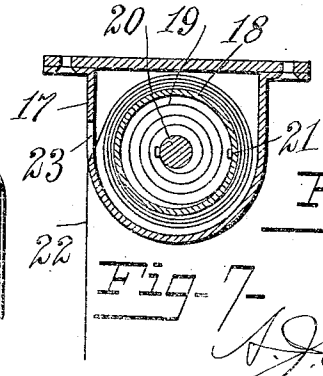


Fig. 7.

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2 SHEETS—SHEET 2.

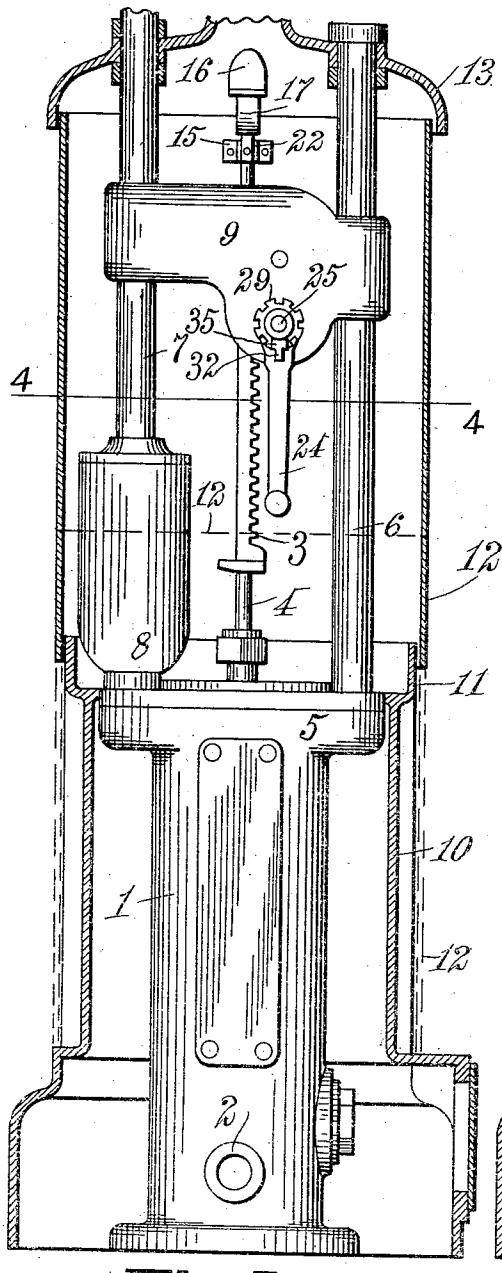


Fig. 2.

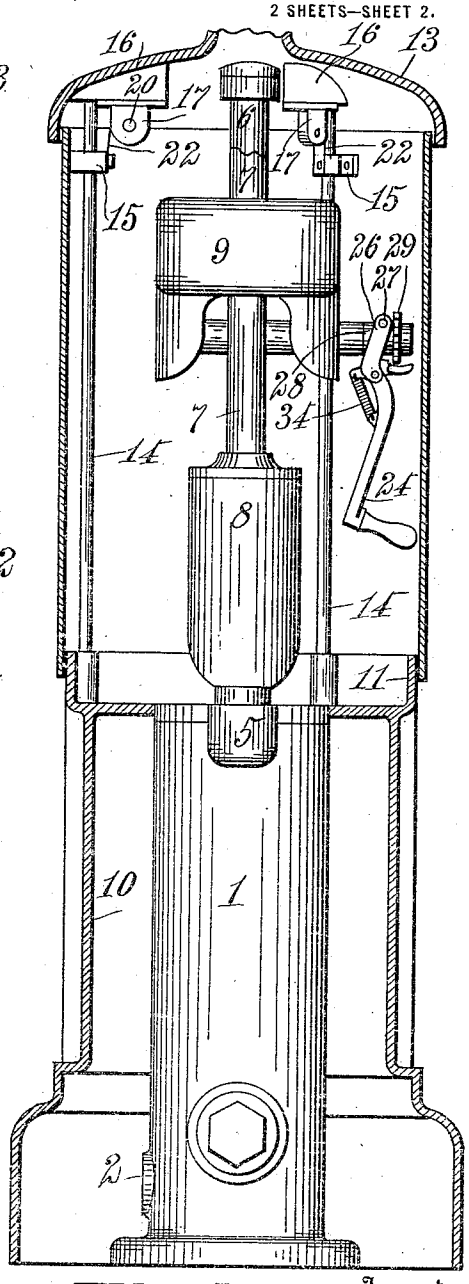


Fig. 3.

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UNITED STATES PATENT OFFICE.

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CASING FOR MEASURING-PUMPS.

1,275,595. Specification of Letters Patent. Patented Aug. 13, 1918.

Application filed November 15, 1916. Serial No. 131,367.

To all whom it may concern:

Be it known that I, AUGUSTINE J. POCOCK, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Casings for Measuring-Pumps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in measuring pumps of the type especially adapted for measuring gasolene although any liquid may be measured thereby with equal facility. The improvements, more specifically speaking, relate to convenient means for incasing the operating mechanism of the pump so that it may not be tampered with when not in use.

With the above objects in view, reference is made to the accompanying drawings which illustrate a single-cylinder measuring pump of which Figure 1 is an elevation of the pump with the movable inclosing case in position to conceal the driving mechanism thereof; Fig. 2 is a vertical elevation similar to Fig. 1 showing the pump casing, both the stationary and movable parts, in section; Fig. 3 is a similar elevation at a right angle to Fig. 2; Fig. 4 is a cross-sectional view on the line 4—4 of Fig. 2; Fig. 5 is a detail view of the handle or operating crank; Fig. 6 is a view of the handle or operating crank at a right angle to Fig. 5; and Fig. 7 is a detail sectional view of one of the spring-controlled winding devices by means of which the movable casing is controlled with respect to its position.

In the specification and drawings, similar reference characters indicate corresponding parts.

Referring in particular to the various features in connection with the accompanying drawings, 1 designates the pump cylinder having the usual suction inlet 2 through which the oil is drawn in to be discharged therefrom through the operation of the rack 3 which connects with the piston 4. The pump cylinder 1 terminates at its upper end in a chambered head 5 from which pipes 6 and 7 extend. Between the head 5 and the pipe 7, which is the discharge pipe, a cylinder 8 is interposed in which any of the well known forms of strainer may be placed for the oil passing out of the cylinder through the pipe 7. The pipes 6 and 7 form a support for the gear casing 9 within which the usual driving gear is mounted which operates the piston rack 3 up and down in a well known manner. The pump cylinder is inclosed by a stationary casing 10 which extends above the cylinder head 5 and the upper diameter of which is enlarged as at 11 to coöperate with a slidable casing 12 which incloses the operating mechanism of the pump when not in use and thereby prevents tampering therewith at such time. The casing 12 consists of a cylinder of a suitable diameter to slide down over the lower casing and which rests upon the base of the lower stationary casing 10 when in the lowered position, as shown in dotted lines in Fig. 2. The upper structure of the pump is provided with a cap 13 which is rigidly secured to the pipes 6 and 7 and is of a suitable diameter to receive the upper end of the slidable casing 12 when the latter is elevated to the inclosing position. A suitable number of rods 14 extend between the head 5 of the cylinder and the cap 13 to provide guides for the movement of the slidable cylinder or casing, said rods being so positioned as to not interfere with the operative parts of the pump. Guide projections 15 project from the upper inner side of the slidable casing 12 and through these projections the guide rods 14 pass. The casing in its movements is guided over the lower portion of the cylinder 10 and to the upper position as shown in Fig. 2. Supports 16 on the interior of the cap 13 provide suitable supports for the upper ends of the guide rods 14. Secured to these supports 16 are housings 17 which inclose winding spools 18 on the interior of which are arranged clock or convolute springs 19. In each case, one end of the convolute spring 19 is attached to a shaft 20 journaled in the sides of a housing 17 and the other end of which is affixed at 21 to the inner side of a spool 18. The outer side of each of the cyl-

inders 18 receives a winding tape 22 which is adapted to be wound and unwound thereon according to the influence of the spring on the interior of the spool. The tape 22 passes out of the housing 17 through an opening 23 therein, as shown in Fig. 7, and the ends of said tapes so passing out are secured to the guide projections 15, before referred to. In the drawings, I have shown three sets of winding tapes arranged at suitable points and it will be seen that when the slidable casing 12 is lowered the winding tape 22 will be withdrawn from the spools 18 and the springs 19 on the interior of said spools will contract in a well known manner or wind up on the shafts 20. The positions of the tape-winding devices, it will be observed, are closely adjacent to the guide rods 14 so that when the slidable casing 12 is lowered the unwound tape 22 will lie adjacent to said rods and parallel therewith and be entirely out of the way of the operating mechanisms of the pump. In a manner that is readily understood when the slidable casing 12 is lowered it will remain in its lowered position until elevated by the hands and when elevated the winding devices will have the effect of holding said casing in the elevated position. Means are provided for locking the casing 12 in its elevated position so that it may not be moved by unauthorized persons. Convenient and simple means for this purpose consists of a loop or hasp 36 which is pivoted to the upper end of the casing 12 at 37 and when elevated upon its hinge it receives a staple 38 secured to an adjacent part of the pump cap 13. The staple 38 receives the hasp of a padlock 39 and the said casing is thus locked from any manipulation when elevated.

The driving gear within the gear casing 9 is operated from the pump handle or crank 24. This gearing is of well known form and constitutes no feature of the present means, therefore, its illustration has been omitted. It is driven from the crank handle 24 which operates a shaft 25 journaled in the sides of the gear casing 9. The upper end of said crank handle 24 terminates in a yoke or fork 26, best shown in Figs. 5 and 6. This fork portion of the crank handle is pivoted at 27 to a collar 28 which is loose on the shaft 25 and the said crank handle may be shifted on its pivot to the inward position shown in Fig. 3, in which case it is confined within the slidable casing 12, or it may be shifted outwardly to an operating position, as shown in Fig. 5, when the slidable casing 12 is lowered. Adjacent to the pivot end of said lever, a toothed wheel 29 is placed, the same being rigidly secured to the shaft 25 in any suitable manner. In the drawings, Fig. 5, I have shown the wheel 29 provided with a collar 30 which receives a pin 31 which secures it to the shaft 25. An operating pawl 32 is pivoted at 33 to the crank 24 immediately below the toothed wheel 29. When the crank handle 24 is shifted outwardly to its operative position, the pawl 32 engages the toothed wheel 29 and an operation of the crank at such time will rotate the shaft 25 and set the gear in the gear casing 9 in operation to lower or raise the piston rod 4 through the rack 3. When the crank 24 is thrown partially from its working position toward its inward position, the pawl 32 rises out of the notches of the driving wheel 29 and, the part 35 of the pawl being two wide to enter said notches, the crank may be turned either way from an upper position to the lower one without operating the pump. In such operation the broad part of the pawl rides over the teeth of said wheel. In this way the crank 24 may be swung from an upper position to a lower position, as in Fig. 3, and then pushed inwardly to permit the casing 12 to inclose it. A coil spring 34 is attached to the inner end of the pawl 32 and to a suitable point on the operating crank 24. The effect of this spring is to maintain the pawl 32 in its operative position. The outer end of the pawl 32 is spread or widened at 35 to prevent that portion of the pawl from entering between the teeth of wheel 29 when the crank 24 is thrown to its inward position.

Having described my invention, I claim.

1. In a pump of the type specified, the combination with a lower stationary casing inclosing the lower portion of a pump structure, and a cap mounted upon the upper portion of said pump structure, of a slidable casing adapted to inclose the upper portion of the pump structure and to telescope over the lower casing when lowered, vertical guide rods mounted on the upper portion of the pump structure, guide projections secured to the upper portion of the slidable casing and coöperating with said guide rods in the movements of said slidable casing, and a series of spring-controlled tape-connections mounted on said cap and connected to the slidable casing whereby said casing is maintained in its elevated position with its upper end within the circumference of said cap and may be lowered against the tension of said tape connections, substantially as specified.

2. In a measuring pump, the combination of a lower stationary casing inclosing the pump cylinder, a stationary cap mounted upon the upper portion of the pump structure, a slidable case adapted to inclose the upper portion of the pump structure between the stationary casing and the cap and to thus form a continuation of the stationary casing when elevated, a series of guides arranged between the lower stationary casing and the cap and the movable casing re-

spectively for centering the movement of said movable casing, housings on the interior of said cap, windable springs mounted in said housings, and band connections between said springs and the upper portion of the slidable casing, substantially as specified.

In testimony whereof I affix my signature, in presence of two witnesses.

AUGUSTINE J. POCOCK.

Witnesses:
MELLIE GALLOWAY,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."