335

For Official Use

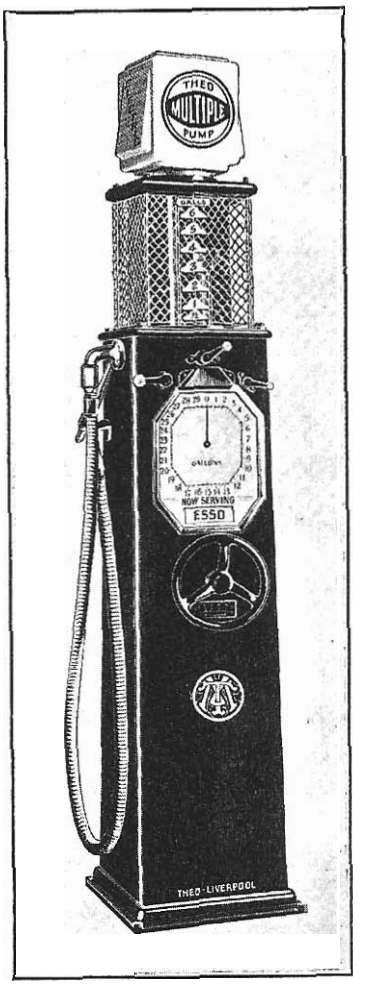
III 4 (B)

(852)

WEIGHTS AND MEASURES ACT, 1904

NOTICE OF EXAMINATION OF PATTERN No. 852.

SUBMITTED BY
MESSRS. THEO & COMPANY LTD., 32 TARLETON STREET, LIVERPOOL

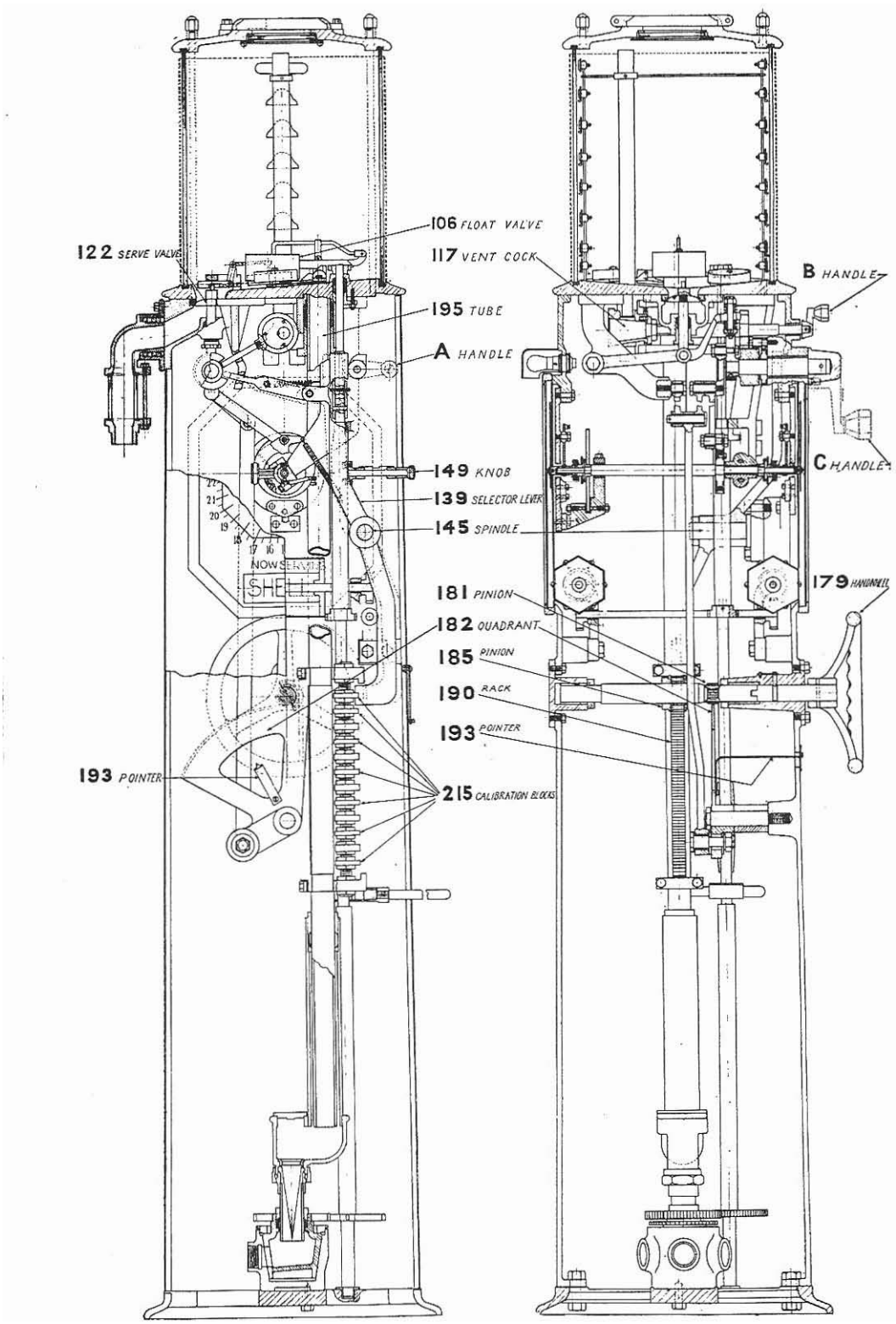


The Board of Trade have examined and tested, with reference to the material of which and the principle on which it is constructed, a pattern of a liquid measuring instrument of the sub-divided container type of 6 gallons capacity of the form shown herein, which has been submitted to the Department under the provisions of Section 6 of the above-mentioned Act, and have issued a Certificate No. 751, dated 27th July, 1936, that the pattern is not such as to facilitate the perpetration of fraud when used for the measurement of petrol and other liquids of low viscosity.

Board of Trade,
Standards Department,
Old Palace Yard,
Westminster, S.W.1.

April, 1937.

P.T.O.


122 SERVE VALVE
106 FLOAT VALVE
117 VENT COCK
B HANDLE
195 TUBE
A HANDLE
C HANDLE
149 KNOB
139 SELECTOR LEVER
145 SPINDLE
179 HANDWHEEL
181 PINION
182 QUADRANT
185 PINION
190 RACK
193 POINTER
193 POINTER
215 CALIBRATION BLOCKS

DESCRIPTION.

This pattern is similar in principle of construction to the patterns described in Notices numbered 474 and 567 and is designed to deliver different brands of petrol. The particular brand being delivered at any time is indicated in a window placed below the indicator dials which are graduated to 30 gallons by ½ gallon subdivisions.

Quantity is defined at the upper limit by the open end of a telescopic tube 195 giving access to the storage tanks and at the lower limit by the serve valve 122 at the base of the container which slopes to the discharge orifice to facilitate drainage.

Liquid is drawn up into the container by exhausting the air within it after the tube 195 has been set at the required level. This is done by moving the hand lever B. Safeguarding mechanism prevents alteration of the position of this tube while the serve valve is open, but when it is closed the hand-wheel 179 may be used to turn the pinion 185 ; and the rack 190, which is connected to the tube can then be raised or lowered. A second pinion 181 mounted on the hand-wheel shaft operates a quadrant 182 which is used to set the locating disc of the individual sales indicators and to drive a small pointer 193 which moves over a graduated scale behind the hand-wheel. The latter serves as a guide to the operator who will turn the handle A to the right when the pointer approaches the desired indication. This movement releases the selector lever 139 which is mounted on a spindle 145 and has been held out of contact with the rack by a cam fitted to the spindle of the handle A. Relieved of this interference, the lever will move under the influence of a spring and a slot at the bottom will engage with the appropriate calibration block 215. These blocks are keyed on a finely threaded shaft and are held in position by lock nuts.

The tube 195 is surmounted by a float operated valve 106 which ensures that the supply line is closed when the level of the liquid is above the top of the tube. Surplus liquid can drain back through the valve 106 and tube 195 after the partial vacuum in the container has been dissipated through the vent cock 117 operated by the handle B.

Liquid will flow through the sight glass to the flexible hose when the handle C has been moved to open the serve valve 122. Movement of this handle is also used to advance the pointers to indicate the amount preset by the movement of the quadrant 182 previously referred to. Any attempt to close the serve vavle 122 before delivery has been completed will cause it to become locked in a partially open position by a pawl engaging with a ratchet on the spindle of handle C. To free this pawl it is necessary to remove part of the housing.

The pointers may be reset to zero in a diminishing gallonage direction only by turning the knob 149.

Screened proprietor's totalisers are provided.

It is not possible to open the serve valve until the selector lever 139 has been fully engaged with one of the calibration pieces nor to release the selector and alter the position of the telescopic tube while the serve valve is open. In addition mechanism associated with the handle B prevents the serve valve being opened before the vacuum in the container is dissipated.

A metal plate bearing the following wording is fixed to the casing :—

IMPORTANT.

Break vacuum and allow spirit to settle to correct level in container before opening discharge.

Do not attempt to close discharge until container is empty.

The instrument is sealed by four seals :—

(*a*) two diametrically opposed studs on the container heads are wired together and sealed ;

(*b*) the studs holding the rack 190 and calibration device 215 to the telescopic tube at top and bottom are sealed (2 seals) ;

(*c*) a wire passing through each of the calibration blocks is sealed.

Notes for the guidance of Inspectors of Weights and Measures.

As the selector lever 139 travels in a circular path slight play is unavoidable between the nib and the rack when in engagement. The Inspector should see that the rack is in the lowest position that this play allows when verifying the instrument.

The Board have sanctioned as modifications of certified patterns within the meaning of No. 9 of the Measuring Instruments (Liquid Fuel and Lubricating Oil) Regulations, 1929, instruments differing from the certified pattern in the following particulars :—

(*a*) Fitted with a hand operated pump in lieu of the electrically driven pump.

(*b*) Fitted with metal containers having glazed panels opposite the markers.

(*c*) Fitted with a swing arm attachment of the form shown in Notice No. 653.

(*d*) Having a supporting bracket connecting the base of the container to the pivot for the selector lever. The bracket is bolted in position.

(*e*) Having a stiffening member welded to the selector lever from the pivotal point to the bottom of the lever to prevent lateral movement.

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