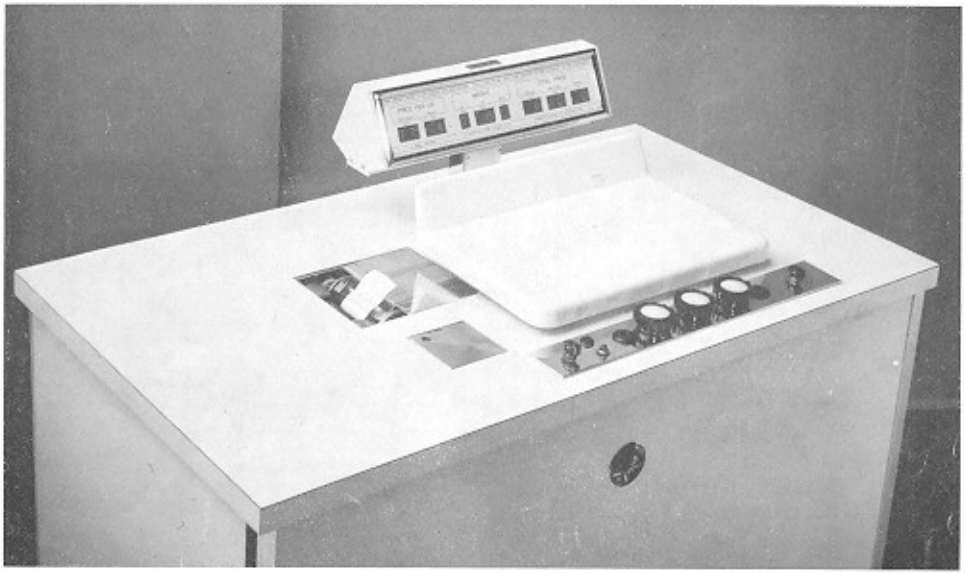
(1488)

WEIGHTS and MEASURES ACT, 1963

NOTICE OF EXAMINATION OF PATTERN No. 1488

Submitted by:
Herbert & Sons Ltd., Rookwood Way, Haverhill, Suffolk



The Board of Trade have examined under the provisions of section 12 of the Act a pattern of a self-indicating, price-computing and ticket printing counter machine of the form shown herein, and have issued a Certificate No. 1479 dated 10th July 1968, that the pattern has been approved as suitable for use for trade.

Board of Trade
Standard Weights and Measures Department
Chapter Street House
26 *Chapter Street*
*London, S.W.*1
February 1969

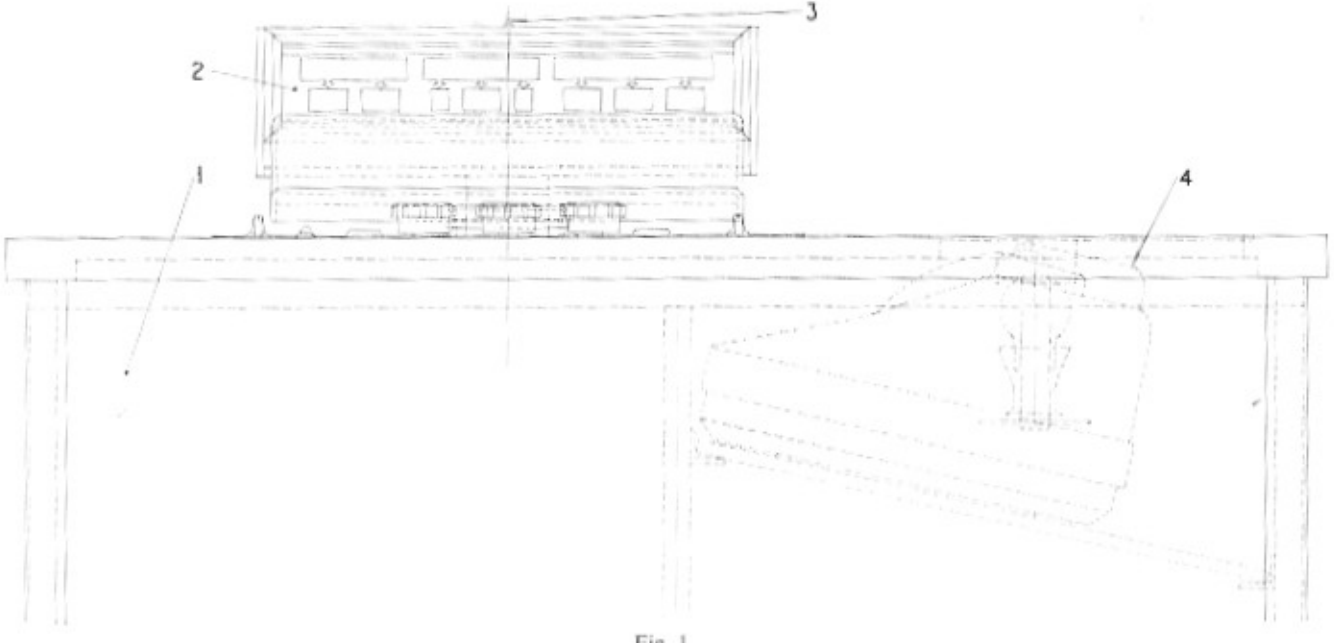


Fig. 1

DESCRIPTION

This pattern is a self-indicating, price-computing and ticket printing counter machine of 10 lb capacity and is arranged to give digital indications of:

(*a*) weight from 0 to 9 lb 15$\frac{3}{4}$ oz by increments of $\frac{1}{4}$ oz;

(*b*) price-per-lb from 1d. to 39s. 11d. by increments of one penny;

(*c*) computed (total) price from 1d. to £19 18s. 6d. by increments of one penny.

In addition a ticket printing mechanism 4 is arranged to print tickets which include the above information together with other information relating to the commodity being weighed.

The whole of the equipment is contained within a standard counter unit 1 and only the goods plate 15, the self-indicating headwork 2, control panel 19 and ticket dispensing point are normally visible, the remainder being enclosed within the counter unit which is provided with four adjustable feet.

The goods plate 15 is secured to the leg 14 in the same manner as is described in Notice No. 1243. The leg 14 is mounted on a first order lever 18 and a stay 16 connects the leg to a pillar 17 mounted on the base of the frame 11, ensuring that the leg remains vertical. The plunger of a dashpot 5 is connected to the lever 18 and the mechanism is balanced by means of a fixed adjustable counterpoise 13 secured to the short arm of the lever. Movement of the lever 18 is limited by adjustable stops 12.

Connected to the opposite end of the lever 18 is a spring resistant 10 and a rack 6 which drives a pinion on a spindle 9 mounted in ball bearings. Two flags are fitted to the rack 6 and, in conjunction with photocell and relay units, inhibit printing when the position of the weighing mechanism is below zero or exceeds capacity. In the latter case a lamp 3 located on top of the housing of the self-indicating headwork 2 and marked 'Error', is illuminated and a bell rings. Mounted on the spindle 9 is a thin metal disc 8 which has a series of equi-spaced radially-positioned rectangular holes pierced near its periphery. The radial edges of each hole represent the graduations of a conventional circular chart and the width of a hole and space between two adjacent holes represents an increment of weight. Fitted in a fixed bracket 7 is a unit comprising a light source provided by a 6-volt lamp and two miniature photocells. The disc 8 rotates between the lamp and the cells so that light may pass through the rectangular holes in the disc on to the cells. The two cells are staggered longitudinally and laterally so that as the leading edge of one of the holes cuts one cell, the trailing edge is cutting the other cell. When the disc rotates on the application of a load on the goods plate 15, the holes passing the cells are counted and the cells transmit signals to the self-indicating headwork 2 and a digital computer contained in the counter unit 1. This solid-state computer incorporates a bi-directional counter which instantaneously adds or subtracts the signals received from the two cells, thereby keeping a running total until the weighing mechanism is in equilibrium. A 'stop-fraud' device in the form of an electronic timer which re-sets to zero each time a signal is received by the bi-directional counter in the computer, is included and inhibits printing until after the last signal has been received when the weighing mechanism is at rest.

The self-indicating headwork 2 is mounted on a pillar and indicates only on the operator's side. The indication is presented in the form of illuminated figures by means of fourteen digital neon indicators. The indications are viewed through eight windows above which are marked as follows (left to right):

(i) First two—'Shillings' and 'Pence' with main heading 'Price per lb'.

(ii) Next three—'lb', 'oz' and '$\frac{1}{4}$ oz' with main heading 'Weight'.

(iii) Last three—'Pounds', 'Shillings' and 'Pence' with main heading 'Total Price'.

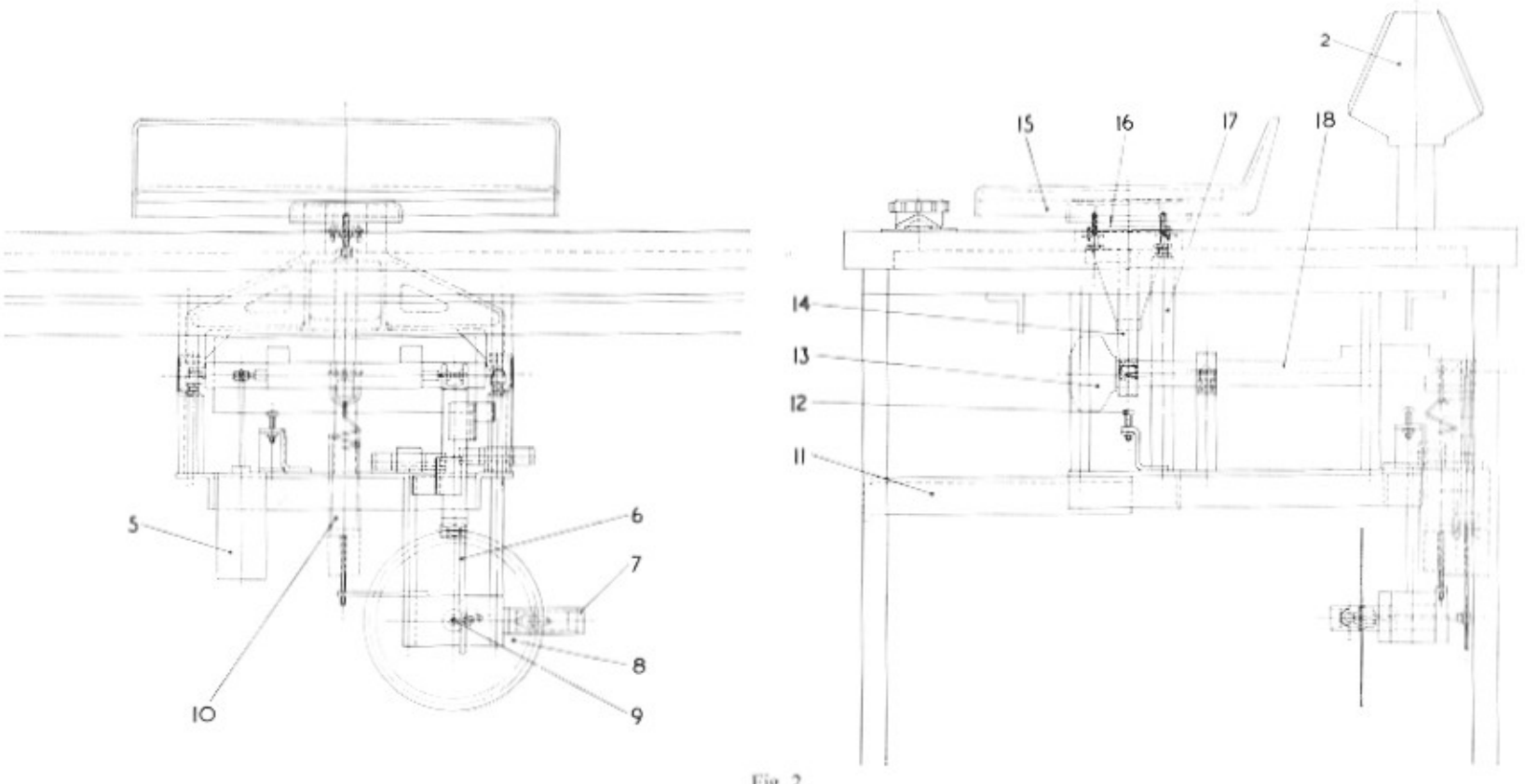


Fig. 2

Subjacent to the two 'Weight' windows, the legend 'To weigh 9 lb 15¾ oz by ¼ oz increments' is marked. The legends 'Tare weight added to net weight must not exceed 10 lb' and 'Not to be used for weighing in the presence of the purchaser' are marked on the dial.

An electronic serialising device provides impulse signals from the self-indicating headwork 2 to the ticket printing mechanism 4 which is a standard business accounting machine (Addo-X), the keyboard of which is concealed below the top of the standard counter unit 1. A heating pad 20 to activate the adhesive on the ticket is included in the top of this counter unit.

The control panel 19 is located parallel to the vendor's edge of the goods plate 15. It includes a mains switch with associated lamp, a fuse and three knobs for pre-setting the price-per-lb which are marked 'Tens shillings', 'Units shillings' and 'Pence'. Also included are two push-buttons marked 'Tare' and 'Print'.

When a load is applied to the goods plate 15 and the disc 8 revolves, the rectangular holes in the disc are always counted from the starting position of the disc so that a zero position of the disc is not necessary. If, therefore, a container is placed on the goods plate 15, its weight will be indicated but depression of the 'Tare' button will cause the indication to be electronically reset to zero without movement of the weighing mechanism. Further load added to the containers will cause the disc to revolve further and the weight of the further load (i.e. the net weight) and its total price will be indicated. The tare weight is, therefore, included in the capacity of the machine and the sum of tare and net weight (gross weight) cannot exceed the capacity.

A circular spirit level is provided on the base of the frame 11 which supports the weighing mechanism and a further similar spirit level is located on top of the counter unit 1 between the goods plate 15 and the self-indicating headwork 2.

Stamping

A stamping plug is provided in the angle iron frame 11.

Notes for the guidance of Inspectors of Weights and Measures

The Board have authorised as minor modifications of a certified pattern within the meaning of section 12(1) of the Weights and Measures Act 1963, instruments differing in the following particulars:

(1) Without the ticket printing mechanism and associated equipment.

(2) Without the subtractive taring device, in which case digital indications are presented on both sides of the self-indicating headwork and the legends 'Tare weight added to net weight must not exceed 10 lb' and 'Not to be used for weighing in the presence of the purchaser' are omitted.

(3) Without both the subtractive taring device and ticket printing mechanism, in which case digital indications are presented on both sides of the self-indicating headwork and the legends 'Tare weight added to net weight must not exceed 10 lb' and 'Not to be used for weighing in the presence of the purchaser' are omitted.

(4) Fitted with scoops, pans or plates of various designs commonly used on counter machines.

(5) Having the ticket printing mechanism outside the standard counter unit.

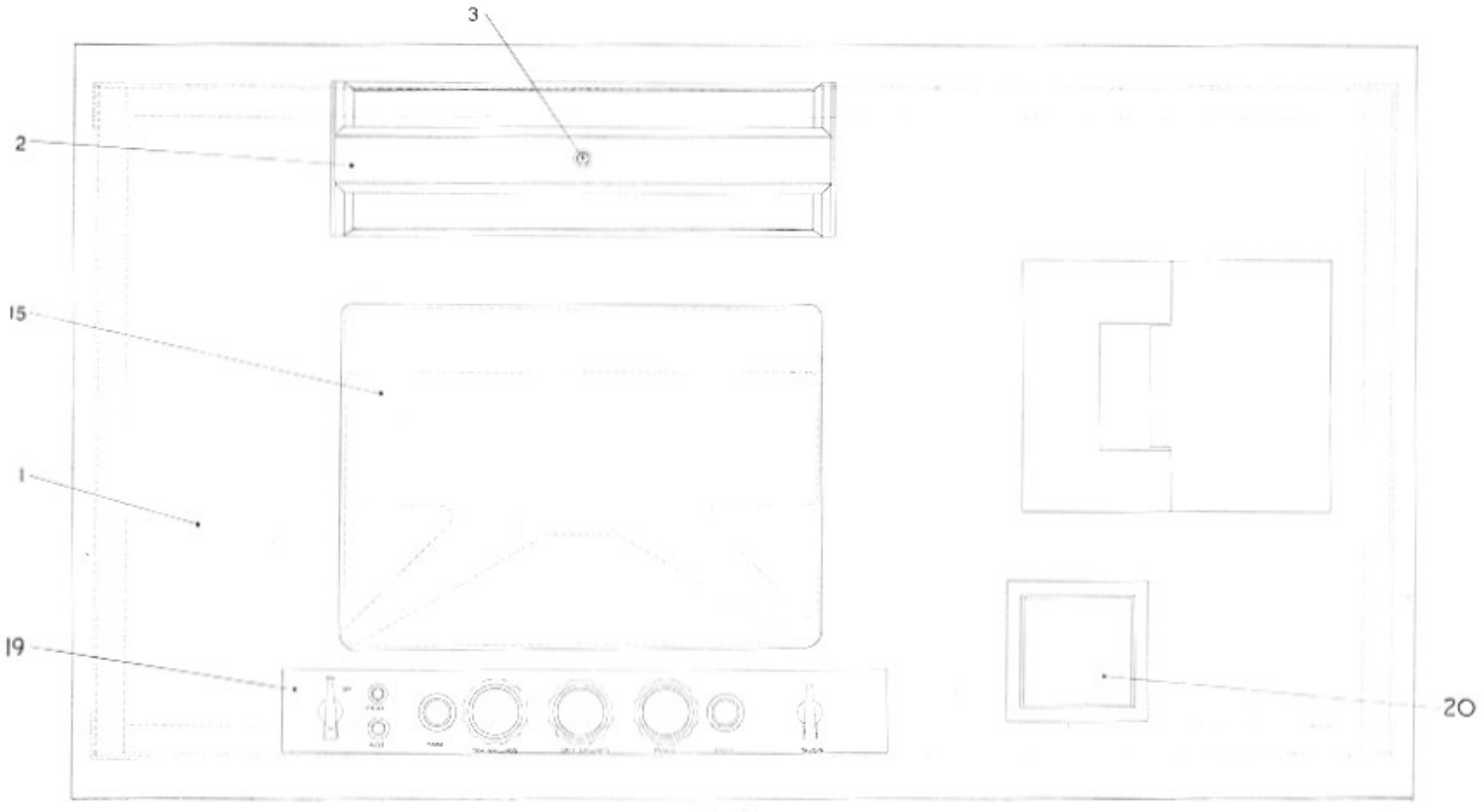


Fig. 3

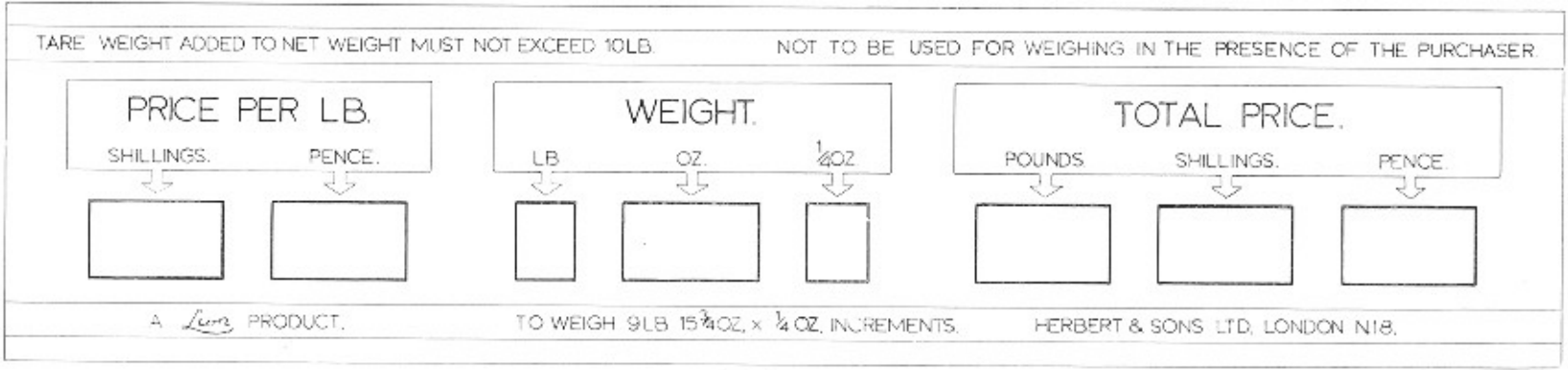

TARE WEIGHT ADDED TO NET WEIGHT MUST NOT EXCEED 10LB.
NOT TO BE USED FOR WEIGHING IN THE PRESENCE OF THE PURCHASER.
PRICE PER LB.
SHILLINGS.
PENCE.
WEIGHT.
LB.
OZ.
½OZ.
TOTAL PRICE.
POUNDS.
SHILLINGS.
PENCE.
A Lucas PRODUCT.
TO WEIGH 9LB. 15¾OZ. x ¼ OZ. INCREMENTS.
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Fig. 4

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