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CANCELLED

CERTIFICATE OF APPROVAL No 6/9C/29

VARIATION No 1

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This is to certify that the following modification of the patterns of the

Toledo Weighing Instrument Model 2290A

approved in Certificate No 6/9C/29 dated 5 August 1974

submitted by Toledo-Berkel Pty Ltd,
525 Graham Street,
Port Melbourne, Victoria, 3207,

has been approved under the Weights and Measures (Patterns of Instruments) Regulations as being suitable for use for trade.

Date of Approval: 14 December 1976

The approved modification described in Technical Schedule No 6/9C/29 - Variation No 1, and in drawings and specifications lodged with the Commission provides for a tare bar inside the headwork cabinet and a tare-weight reading face.

The approval is subject to review on or after 1 August 1979.

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/9C/29".

Signed

Executive Officer

15/2/77

CANCELLED

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9C/29

Pattern: Toledo 2290A Weighing Instrument

Submittor: Toledo-Berkel Pty Ltd,
525 Graham Street,
Port Melbourne, Victoria, 3207.

Date of Approval: 5 August 1974

All instruments conforming to this approval shall be marked "NSC No 6/9C/29".

Description:

The pattern (see Figures 1 and 2) is a portable platform weighing instrument of capacity 550 kg by 0,5-kg graduations and includes a tare capacity of 50 kg. It is supported at the headwork end by two wheels individually adjustable in height by means of screws, and at the other end by two screw levelling jacks. Two level indicators are fitted on the basework (see Figures 1 and 2), each with the notice "instrument incorrect if not truly level, check both levels". A detachable towbar fits into a bracket on the basework frame.

The headwork comprises:

1. Headwork cabinet (see Figure 1), with the dial facing away from the platform.

2. Double-pendulum-resistant mechanism as described in Certificate No 6/9C/2 (see Figure 3). The resistant mechanism is only suitable for dials with up to 3,5 graduations per degree (1200 graduations).

3. An intermediate lever (see Figure 4) between the main headwork lever and the resistant mechanism. It has a balance weight on one end and a zero-adjustment device near the other end.

4. Locking device (see Figures 2 and 4), which raises the intermediate

lever and the main headwork lever against a stop so that in the locked position the indicator is in the blank zone on the dial.

5. Main headwork lever (see Figure 4) with a balance weight at one end and a dashpot near the other.

6. Tare bar (see Figure 1). One or two tare bars may be fitted to the main headwork lever; the tare bar(s) face away from the platform.

The basework (see Figures 2 and 5) is a two-lever system of maximum capacity 550 kg, with the main levers suspended from brackets in each corner of the basework frame. The platform is supported by a parallel link suspension from the main levers. The underside of the main levers is protected from contact with any object on the floor by reinforced channel secured to each end of the basework frame.

The approval includes:

1. The headwork in other capacities up to 550 kg. If no tare bars are fitted and the dial has a maximum 1,75 graduations per degree (600 graduations), the dial may face the platform.

2. The headwork without tare bars.

3. The Verilux 711 optical-projection weight indicator, with up to 1200 graduations, as described in Certificate No 6/9C/2, replacing the dial (see Figure 6). If no tare bars are fitted, the dial with up to 1200 graduations may face the platform.

4. The resistant mechanism and housing able to swivel through 360°, in which case the resistant mechanism is only suitable for dials with up to 1,75 graduations per degree (600 graduations), and no tare bars are fitted.

5. The headwork with a dial on each side, in which case the dial has a maximum of 1,75 graduations per degree (600 graduations) and no tare bars are fitted.

6. The headwork fitted with a remote-data transmitter (see Figure 7), which provides signals for peripheral equipment.

7. The headwork fitted with a ticket printer (see Figure 8). A keyboard

which allows non-weight information to be printed on the ticket may be fitted.

A photo-electric or strain-gauge motion detector (see Figures 9 and 10) is used in conjunction with a time delay to prevent the printer from operating until the weight indication is steady. A motion detector which is sensitive enough to detect a small disturbance of the weighing mechanism may only need a short time delay; however, if only large disturbances are detected, a longer time delay will be needed to allow the instrument to return to balance before printing (refer Special Tests — Motion Detector). A light illuminates when a disturbance of the weighing mechanism is sufficiently large to be detected by the motion detector and thus prevent the printer printing. The motion-detector light may be switched off at times other than testing.

The dashpot actuating the strain-gauge motion detector is sealed (see Figure 10).

Note: A pneumatic or photo-electric switch controlling peripheral equipment may be installed with this pattern. For a pneumatic switch a check should be made that the indication does not change when the air supply is cut off.

Special Tests — Motion Detector:

1. Determine the smallest load which when removed from the platform causes the motion-detector light to come on; that is, determine the threshold sensitivity of the motion detector. If this is one graduation or less, only carry out test 4; if not, do tests 2 and 3.

2. Remove the load determined in 1, and at the same time press the print button; the motion-detector light will come on and the printer should print the new weight, that is, the original load less the value of the weight removed.

3. Decrease the value of the load removed by the equivalent of one graduation. Repeat test 2. The motion-detector light should not come on and the printer should print the new weight; that is, the original weight less the weight determined in 1, plus one graduation. If the light does come on, recheck the threshold sensitivity of the motion detector.

The time delay is correctly adjusted in relation to the motion-detector

threshold sensitivity if the correct weights are printed and the light operates as specified.

4. When the threshold sensitivity determined in 1 is one graduation or less, remove a load equal to 1,5 graduations from the platform and at the same time press the print button. In this case the time delay is correctly adjusted in relation to the motion-detector threshold sensitivity if the light comes on and the printer prints the new weight.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9C/29

VARIATION No 1

Pattern: Toledo Weighing Instrument Model 2290A
approved in Certificate No 6/9C/29 dated 5 August 1974

Submittor: Toledo-Berkel Pty Ltd,
525 Graham Street,
Port Melbourne, Victoria, 3207.

Date of Approval of Variation: 14 December 1976

The modification described in this Schedule applies to the patterns described in Technical Schedule No 6/9C/29 dated 26 May 1975.

All instruments conforming to this approval shall be marked "NSC No 6/9C/29".

Description:

The approved modification provides for a tare bar inside the headwork cabinet with its poise moved by metal tapes from a drum attached to a tare knob, and tare-weight reading face which is marked with up to 160 scale marks (see Figures 11 and 12). The tare knob and the tare-weight reading face are on the same side of the headwork as the weight reading face, and both face away from the load receptor. The weight reading face is marked,* for example:

(III)

Max	=	300 kg
Min	=	25 kg
d = e	=	0,5 kg
T	=	+ 80 kg

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*1. Max (maximum capacity) plus T (additive tare capacity) should not exceed the basework load capacity.

2. Min = 50e for e 50 g to 10 kg and Min = 1000 kg for e above 10 kg.

FIGURE 6/9C/29 - 1

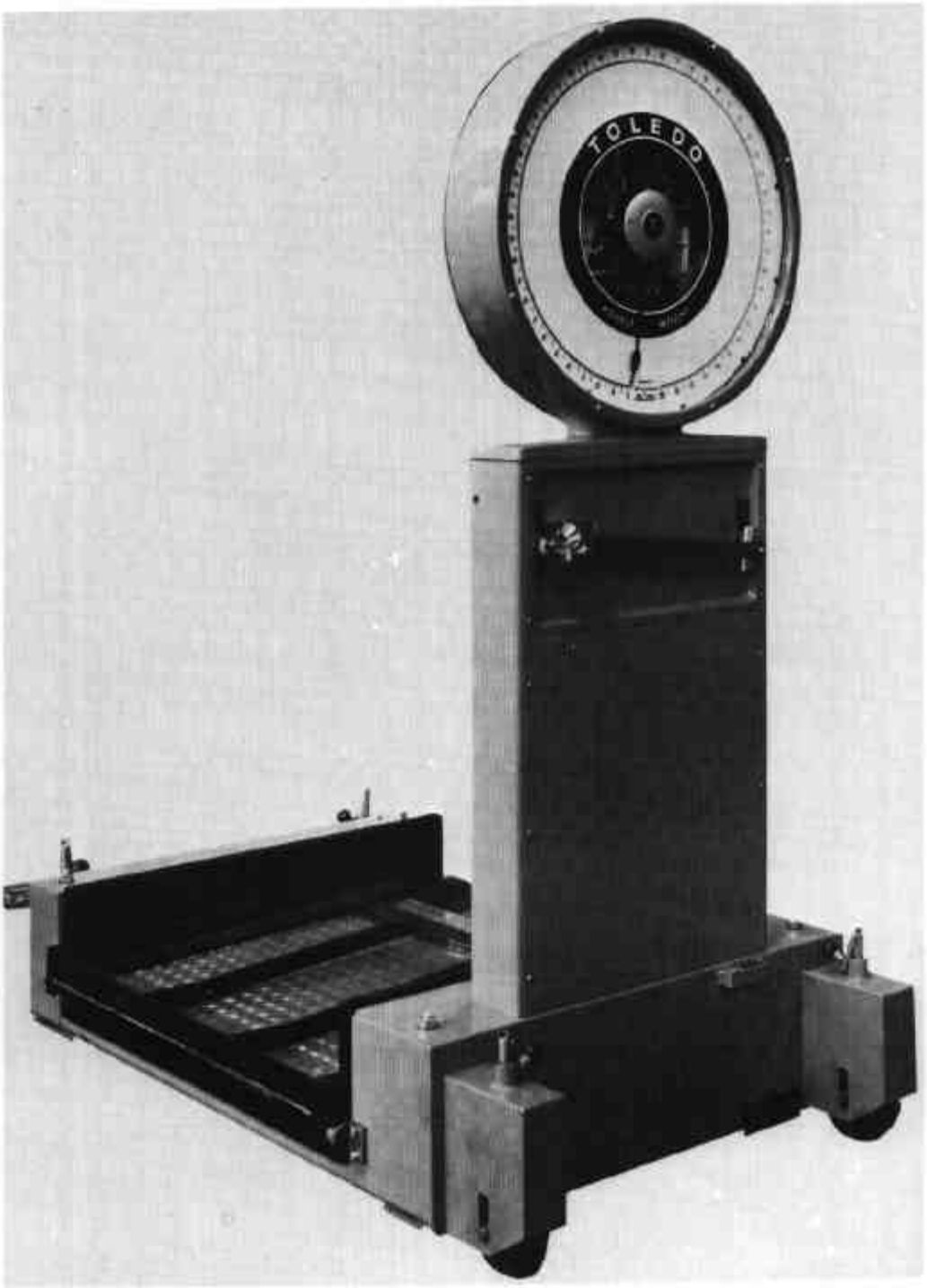

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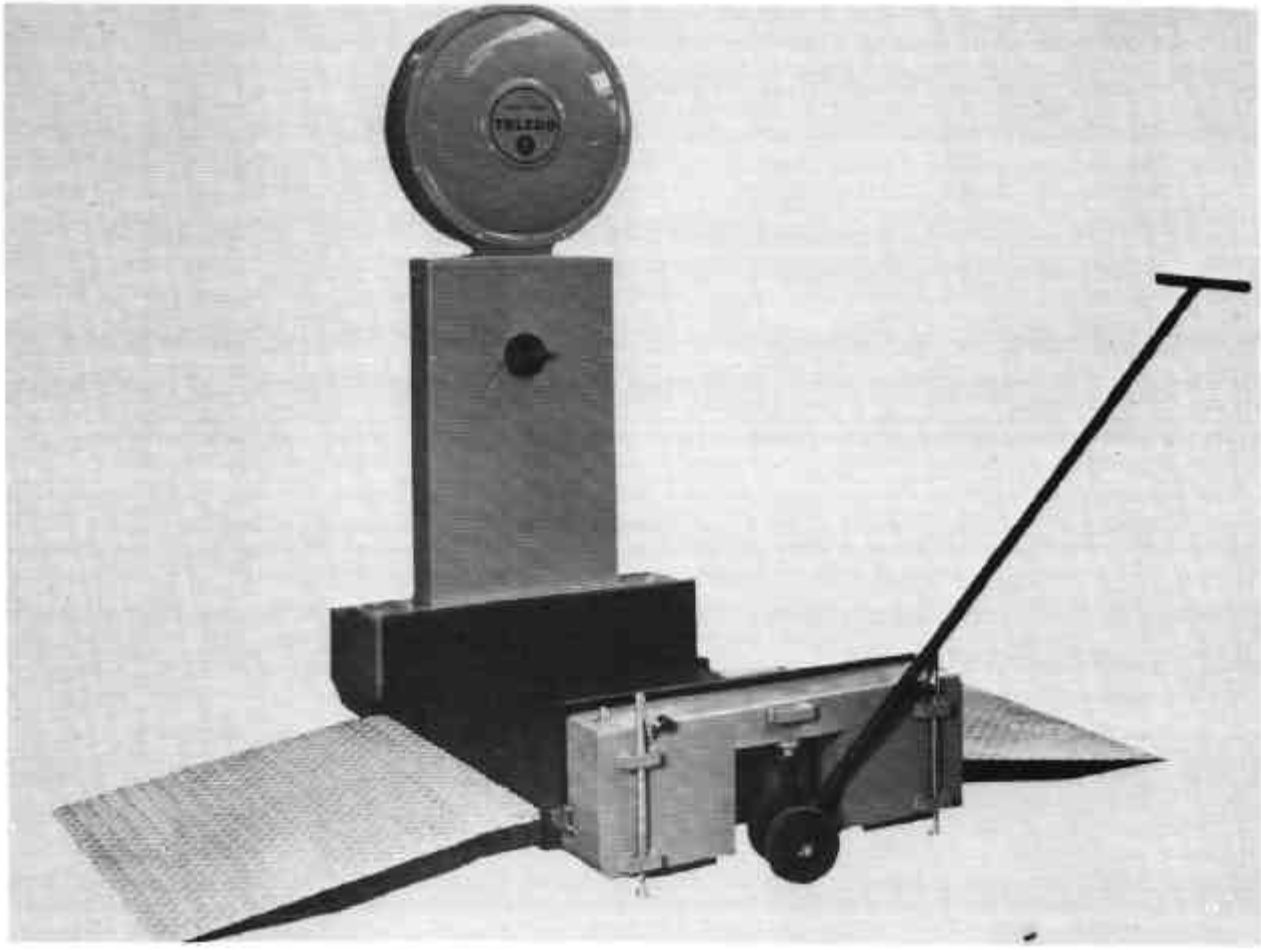
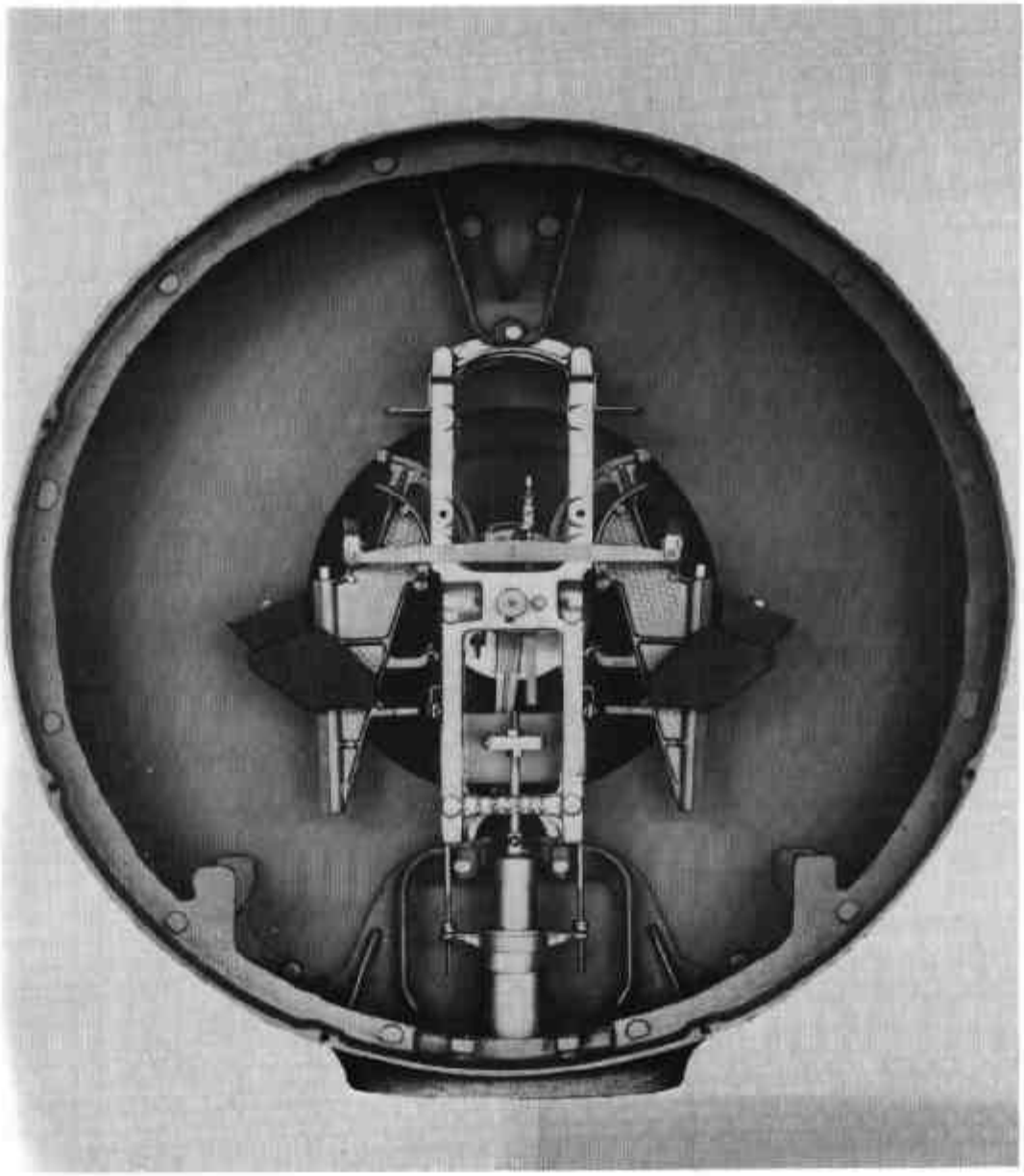
FIGURE 6/9C/29 - 2



Toledo 2290A

FIGURE 6/9C/29 - 3



Double-pendulum Resistant Mechanism

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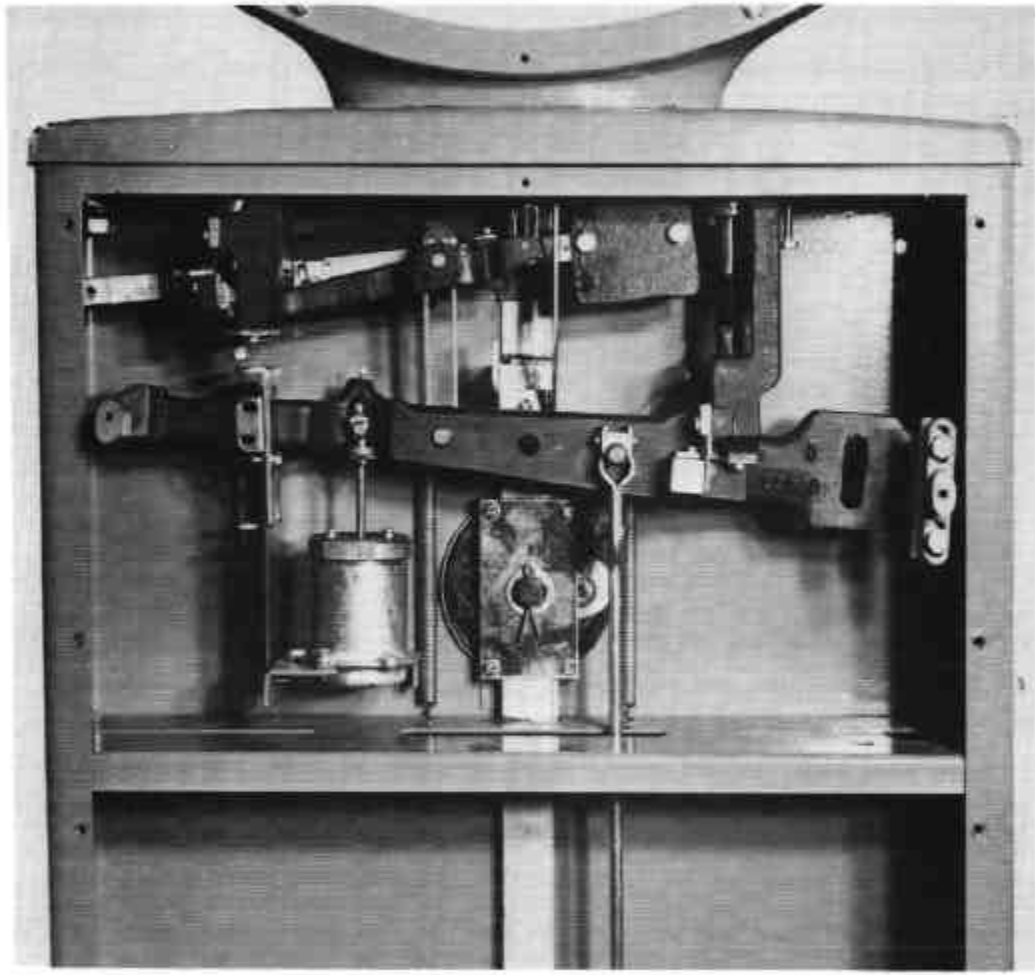
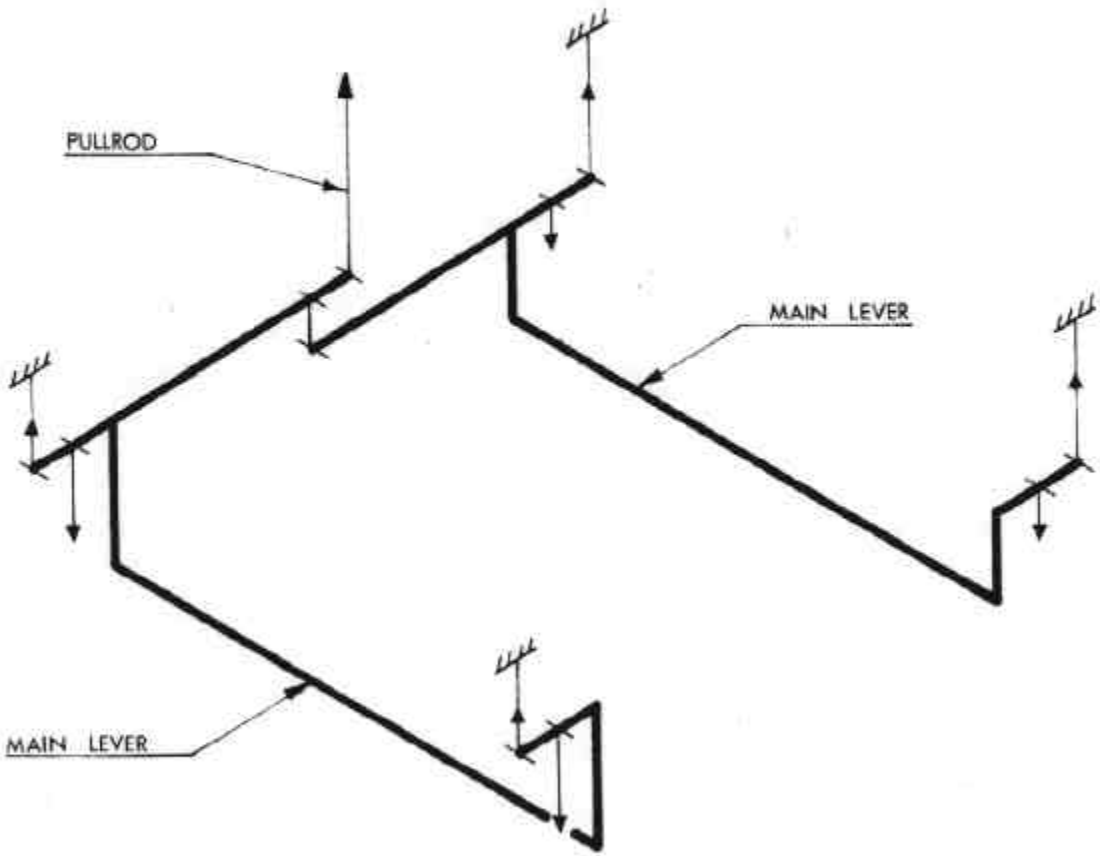
FIGURE 6/9C/29 - 4



Intermediate Lever, Main Lever and Locking Device

FIGURE 6/9C/29 - 5

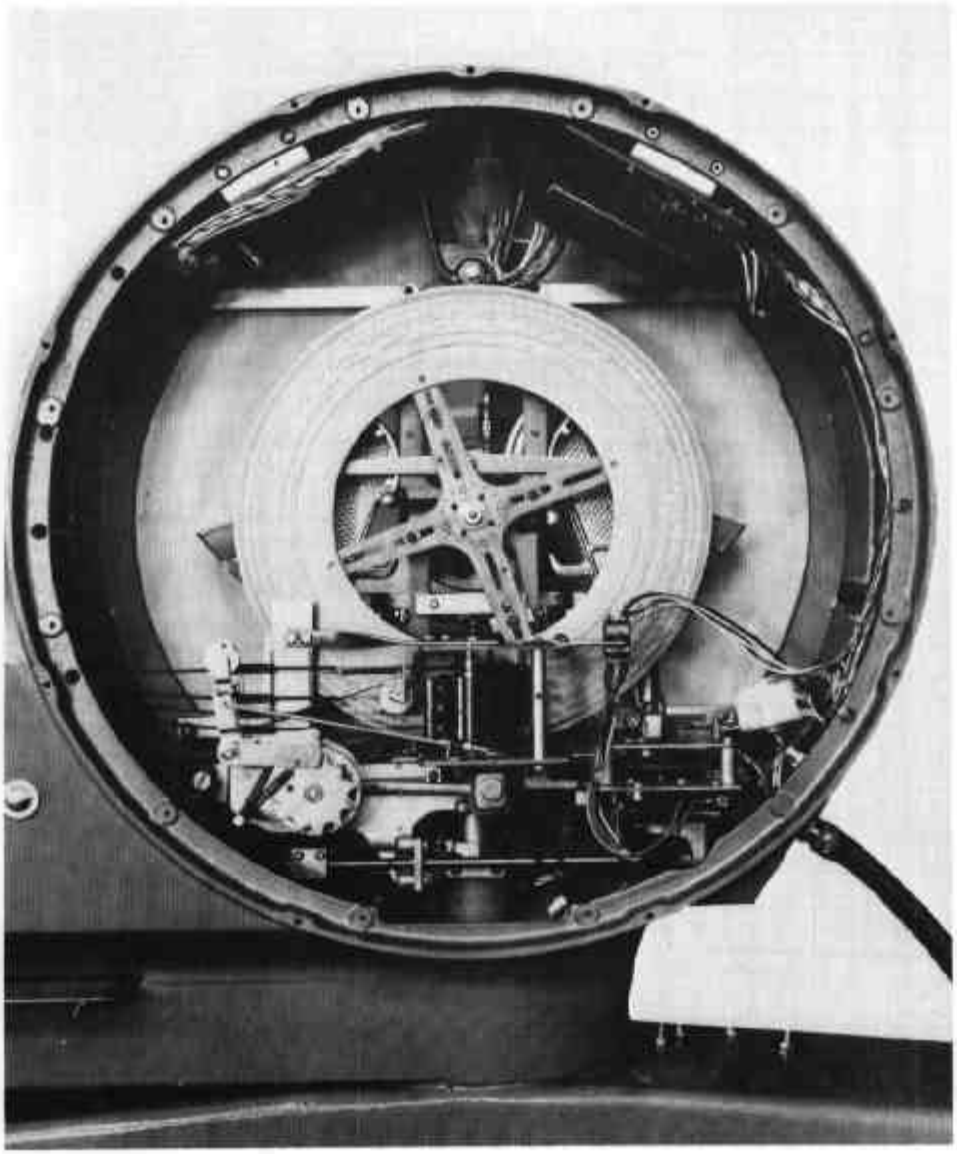


Basework — Schematic Diagram

FIGURE 6/9C/29 - 6

Verilux 711 Weight Indicator

FIGURE 6/9C/29 - 7



Remote-data Transmitter

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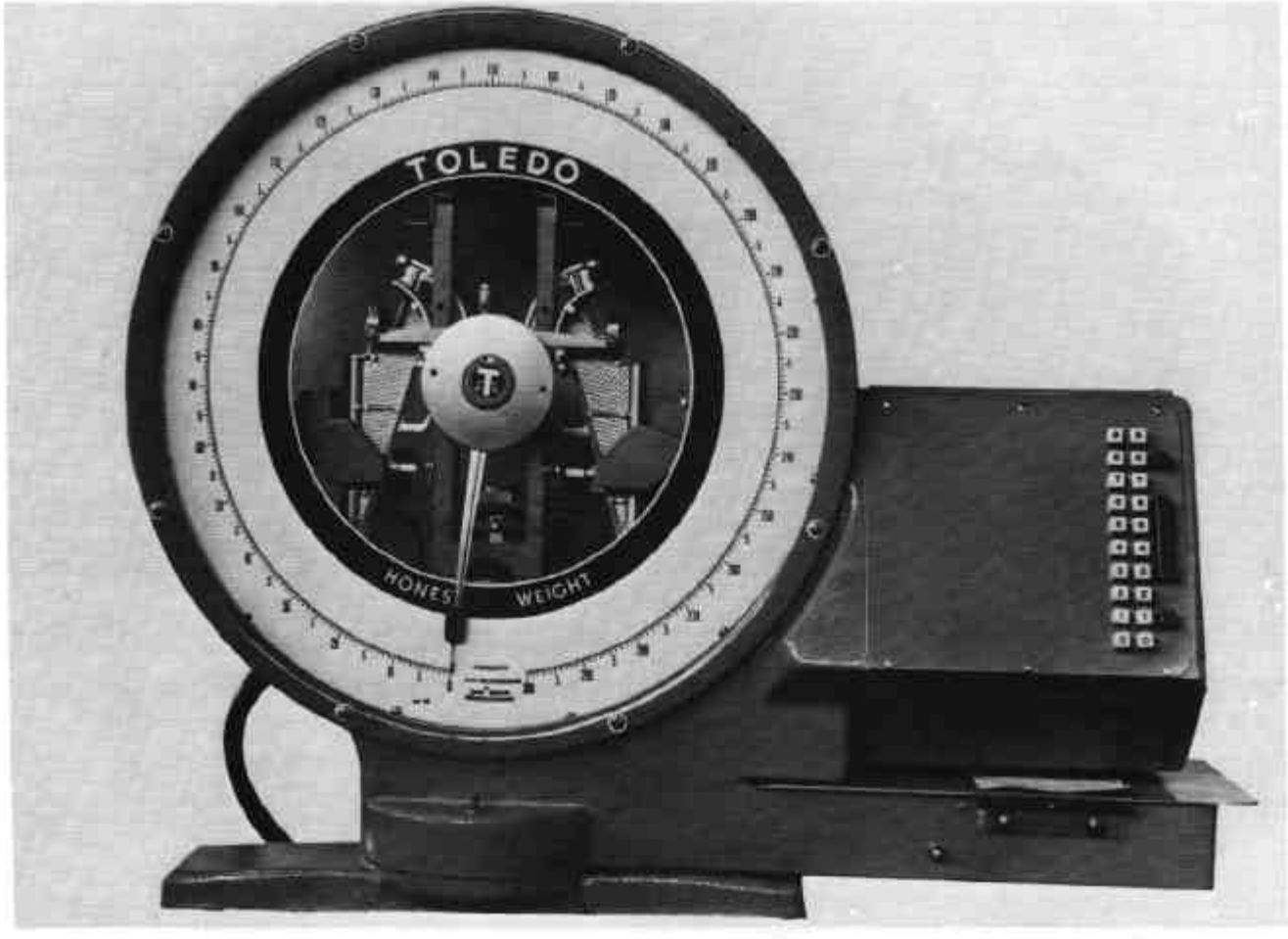
FIGURE 6/9C/29 - 8



Ticket Printer

FIGURE 6/9C/29 - 9

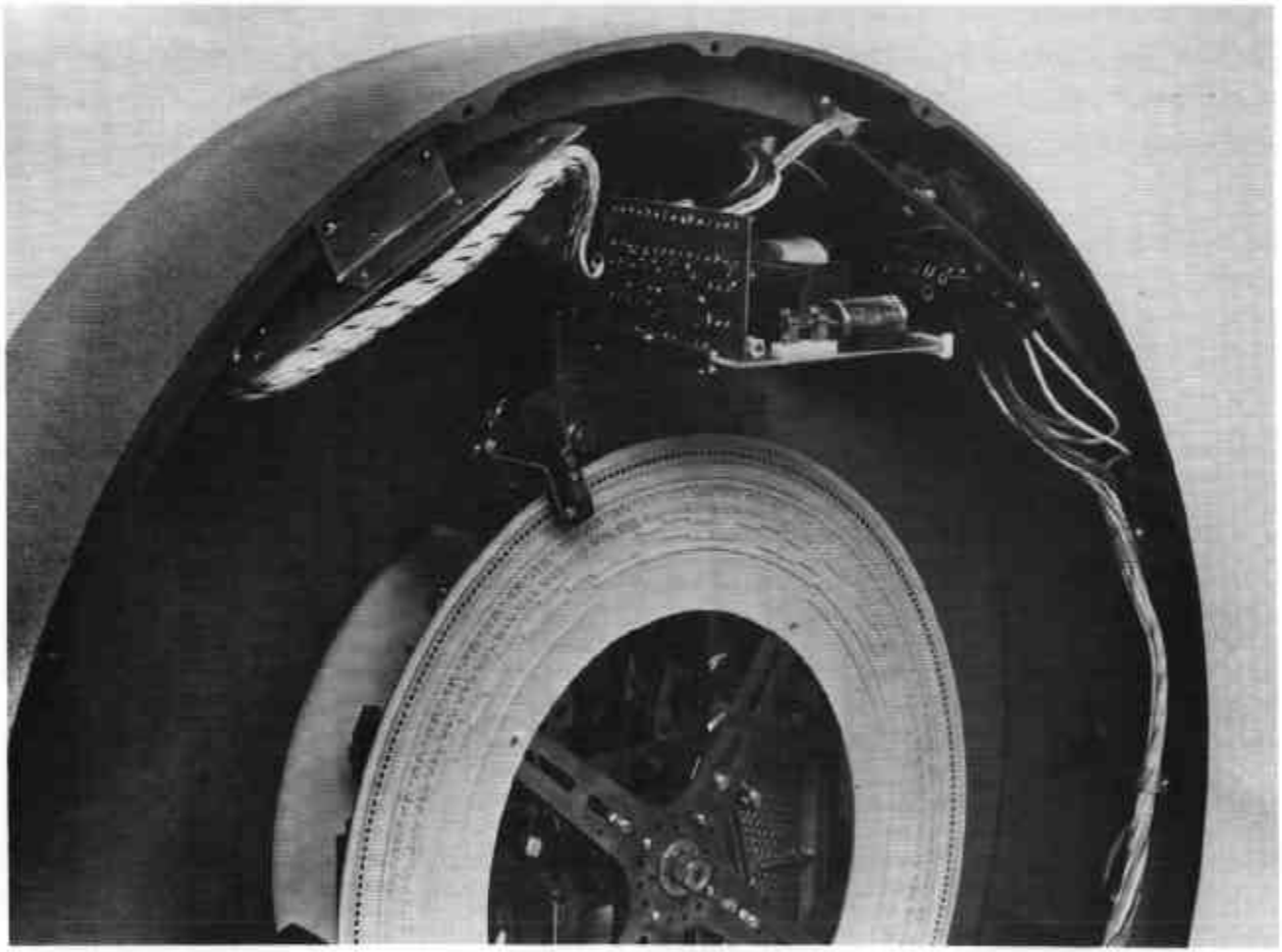
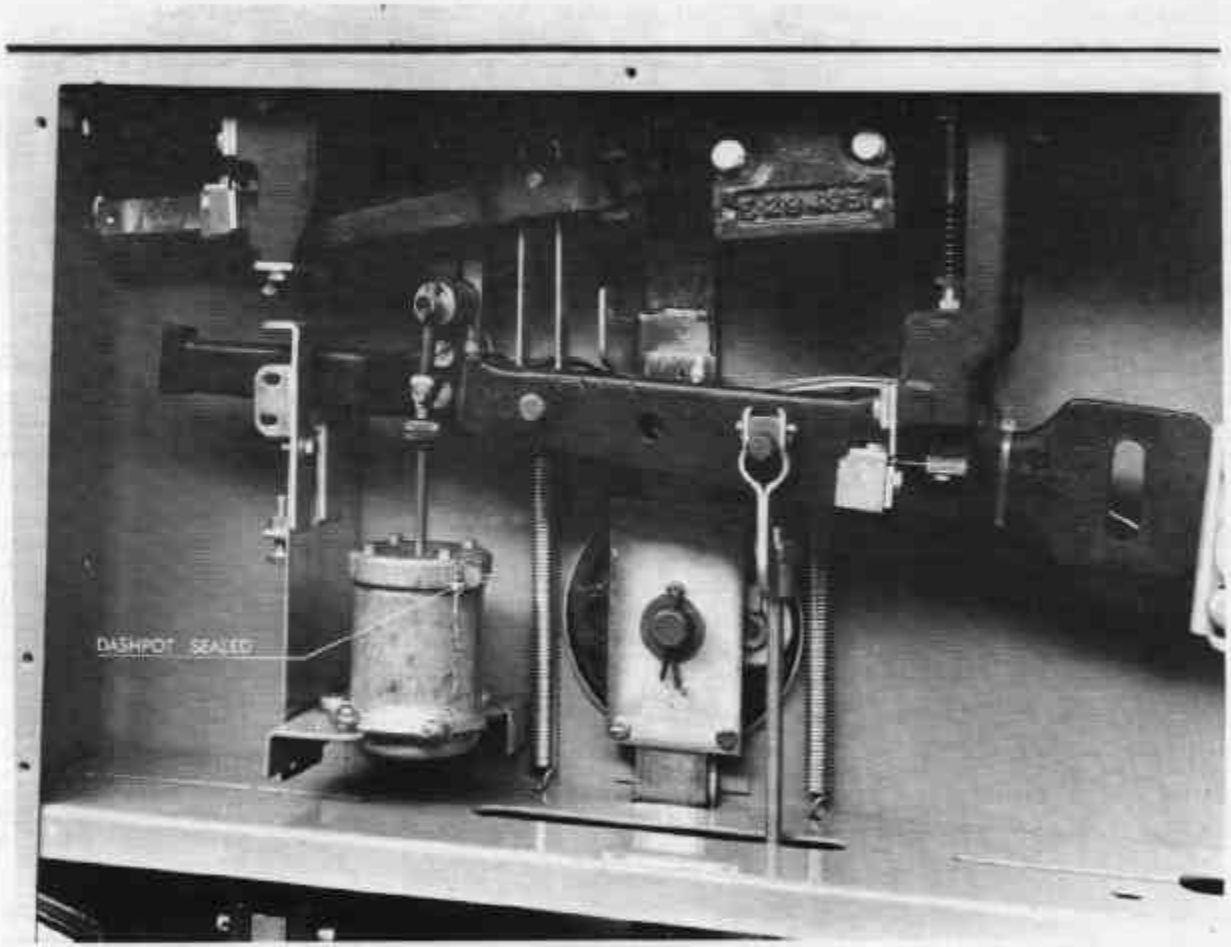
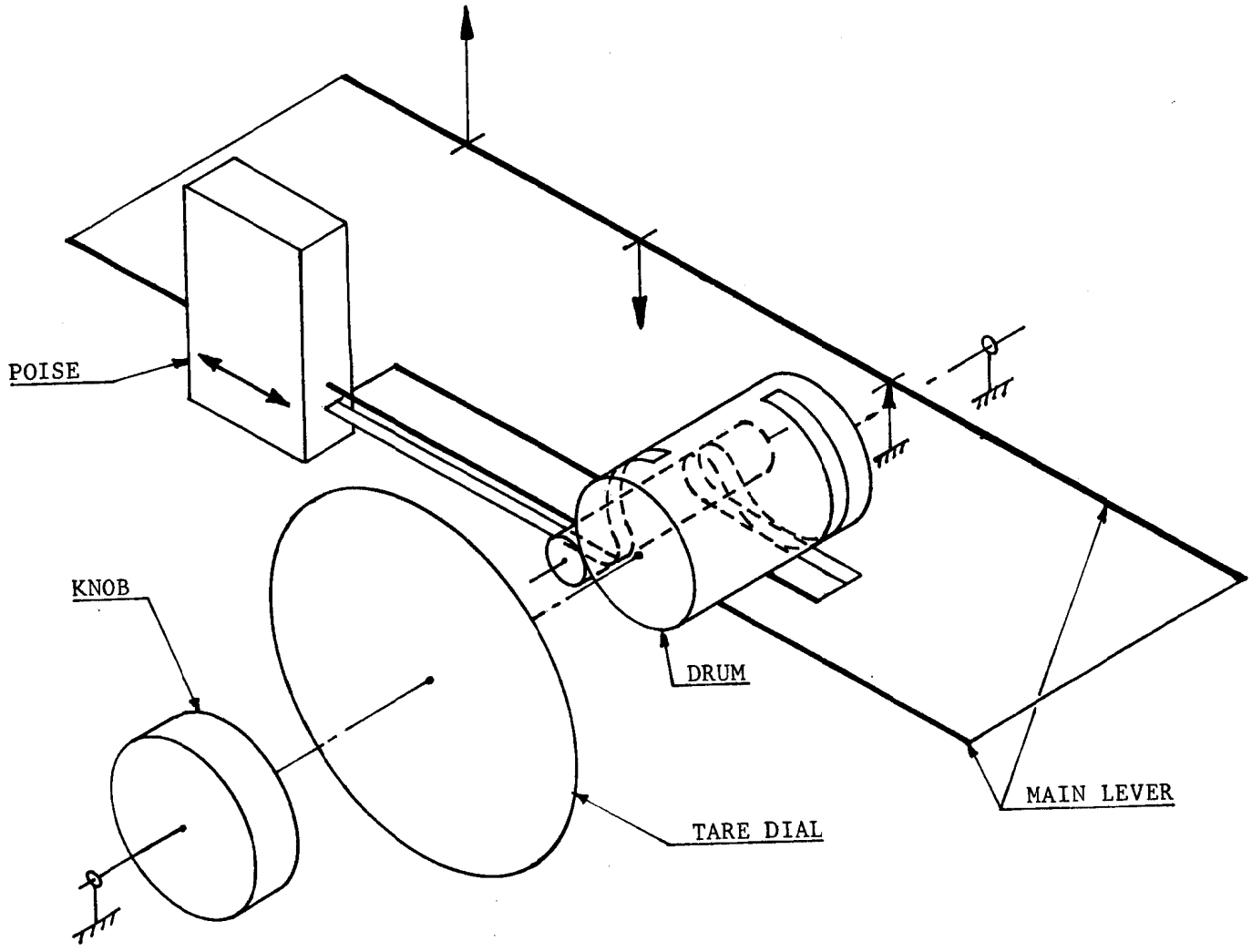


Photo-electric Motion Detector

FIGURE 6/9C/29 - 10

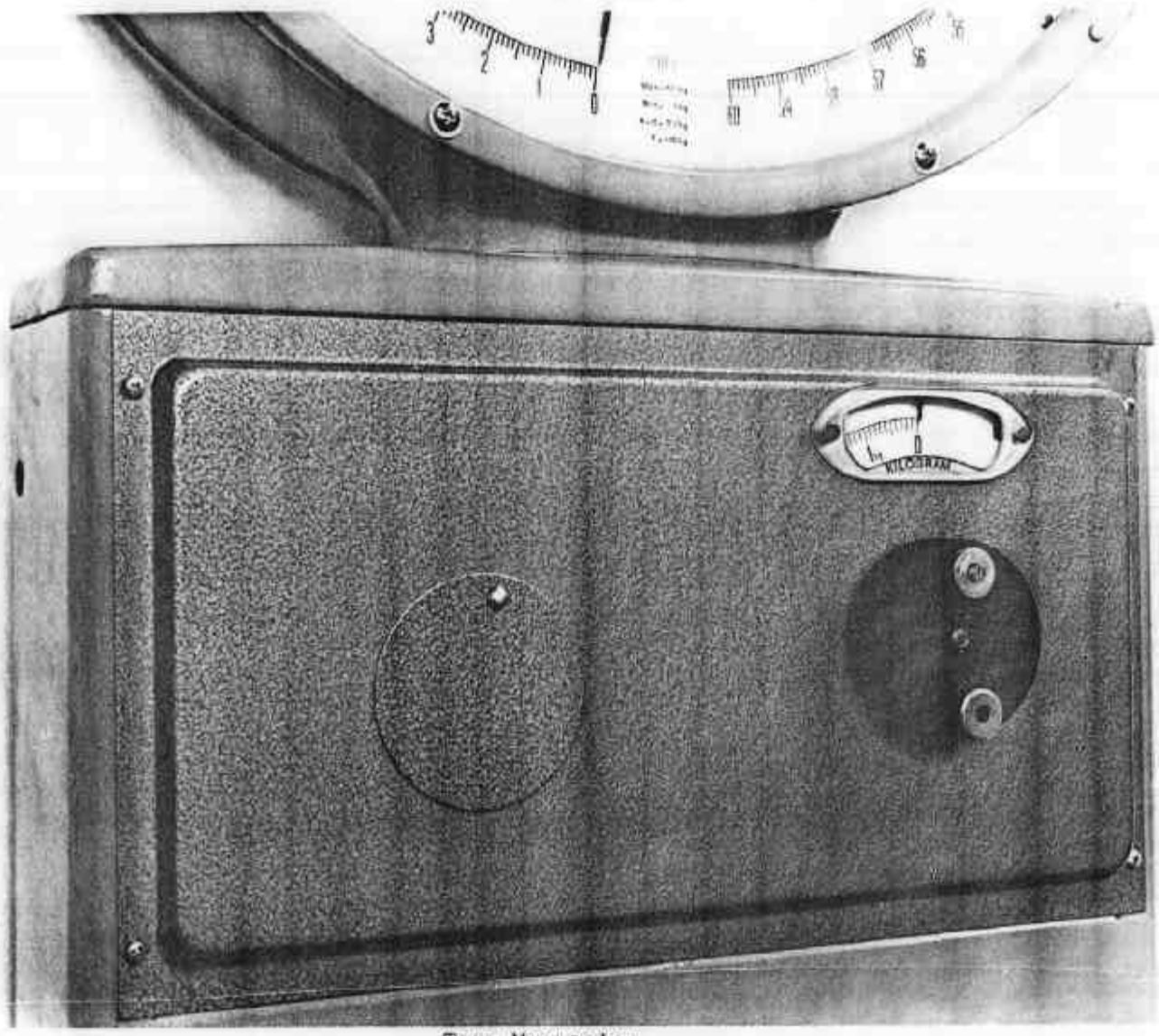


Strain-gauge Motion Detector



Tare Mechanism — Schematic Diagram

FIGURE 6/9C/29 - 12



Tare Mechanism