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CERTIFICATE OF APPROVAL No 6/4C/7

VARIATION No 1

CANCELLED

0/1

This is to certify that the following modification of the patterns of the
Suprema K2, K4 and K6 Weighing Instruments

approved in Certificate No 6/4C/7 dated 3 July 1973,

submitted by J. W. Wedderburn & Sons Pty Ltd,
90 Parramatta Road,
Summer Hill, New South Wales, 2130,

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

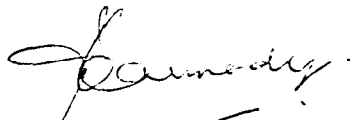
Date of Approval: 8 December 1975

The approved modification, described in Technical Schedule No 6/4C/7 -
Variation No 1 and in drawings and specifications lodged with the Commission,
provides for two tare bars.

The approval is subject to review on or after 1 August 1978.

All instruments conforming to this approval shall be marked with the
approval number "NSC No 6/4C/7".

Signed


Executive Officer



CANCELLED

COMMONWEALTH OF AUSTRALIA

NATIONAL STANDARDS COMMISSION

Weights and Measures
(National Standards)
Act 1960-1966

Weights and Measures
(Patterns of Instruments)
Regulations

Certificate of Approval

CERTIFICATE NUMBER 6/4C/7

In respect of the pattern of

Suprema Self-indicating Weighing Instrument of 10-kg Capacity and Variants.

Submitted by:

J. W. Wedderburn & Sons Pty Ltd,
90 Parramatta Road,
Summer Hill,
New South Wales. 2130.

Manufactured by:

Suprema dei Fratelli Bettinelli S. N. C.,
via Matteati 28,
21040 Santo Stefano,
Varese. Italy.

This is to certify that the pattern and variants of the instrument illustrated and described in this Certificate have been examined by the National Standards Commission under the provisions of the abovementioned Regulations and have been approved as being suitable for use for trade.

The pattern and variants were approved on 25 June 1973.

The pattern and variants are marked "NSC No 6/4C/7" and comply with the General Specifications for Measuring Instruments to be Used for Trade.

Tests carried out on instruments purporting to conform to this Certificate shall include those described in the General Notes.

3/7/73

Cont'd over

This Certificate comprises:

Pages 1 to 6 dated 3 July 1973.

Figures 6/4C/7 - 1 to 17 dated 3 July 1973.

Date of issue 3 July 1973.

Signed

A handwritten signature in cursive script, appearing to read "Philip A. Manton".

A person authorized by the Commission
to sign Certificates under the
abovementioned Regulations.

3/7/73

DESCRIPTION OF PATTERN

The pattern (see Figure 2) is of a self-indicating weighing instrument of 10-kg capacity and comprises the components tabulated in Column 5 of Figure 1.

The capacity of 10 kg includes a dial of capacity 1 kg by 10-g graduations and unit weights giving nine extra ranges, each equivalent to 1 kg. The pattern is known as a Suprema Model K6.

DESCRIPTION OF VARIANTS

The components tabulated in Columns 6 to 9 of Figure 1 make up variants known as Suprema self-indicating counter machines with the following model designations and maximum capacities:

<u>Column</u>	<u>Model</u>	<u>Maximum Capacity</u>
6	Suprema	3 kg
7	K2	3 kg
8	K4	6 kg
9	K6	10 kg

DESCRIPTION OF COMPONENTS

1. Lever system with multiple weight range-changing mechanism (see Figures 3, 4 and 5) — the platform cradle is supported at one end on the load knife-edges of the second-order main lever and at the other end on a secondary lever which is supported on the baseframe and connected to the main lever. All connections of the secondary lever knife-edges with the platform cradle, main lever and baseframe are by links fitted with self-aligning bearings.

The main-lever fulcrum knife-edge is supported in self-aligning bearings attached to the baseframe and a weight cradle is suspended on the nose-end knife-edge. Up to five weights are deposited on or removed from the weight cradle, either individually or in combination, by means of levers and cams; this provides up to ten ranges. The cams are mounted on a shaft which is operated by a knob which can be positioned on either side of the instrument.

A cone-shaped bearing is fitted on the cradle to take the pushrod

to the pendulum-resistant mechanism. The weight cradle is stabilized by a horizontal stay. An additional cam and lever moves the vertical rod which positions the flash dial according to the range selected.

The knife-edges are a dovetail fit in the levers and the bearings are of the self-aligning type with friction plates.

The basework housing has an aperture fitted with a dust cap for access to the adjustment of the dashpot which is attached to the main lever.

2. Lever system with single weight range-changing mechanism (see Figures 6, 7, 8 and 9) — is similar to Component 1 except that the weight cradle is not fitted and the cone-shaped bearing supporting the pushrod to the resistant mechanism is fitted directly on the main lever.

A single cylindrical weight moves along the main lever and seats in notches to give up to ten weight ranges. The weight is positioned by a rack and pinion controlled by a knob in the front or side of the basework housing. Another rack and pinion controlled by the same knob moves the vertical rod which positions the flash dial according to the range selected.

The links connecting the secondary lever with the platform cradle and the baseframe have a knife-edge bearing and a cone-shaped bearing to support needle-shaped pivots on the platform cradle and the baseframe.

The basework is enclosed in a metal case with one aperture fitted with a dust cap for checking the unit weight and one for access to the adjustment of the dashpot.

3. Lever system with fixed weight (see Figure 10) — similar to Component 2 except that a fixed weight is located on the nose-end of the lever and the range-changing mechanism is not fitted.
4. Graduated tare bar (see Figures 11 and 12) — the bar is notched and marked with corresponding graduations. The bar is fixed by two screws to a bracket which is in turn fixed to the main lever by a screw and two locating pins.

5. Ungraduated tare bar (see Figure 13) — similar to Component 4 but without the notches and with only zero and full capacity marked. The poise is moved by a screw which is rotated by a knob.
6. Pendulum-resistant mechanism (see Figures 14 and 15) — the pushrod from the basework is fitted with a bearing and operates the pendulum through a knife-edge located in a lever. The pendulum fulcrum knife-edge has a round shank and is held in place by a grub screw located in a dimple; the pushrod knife-edge is a dovetail force-fit in the lever. Adjustable balance weights and indicators are fitted to the pendulum. The mechanism is suitable for dials with up to two graduations per degree, over an arc of not more than 50° .
7. Fan-shaped dial housing (see Figure 16) — mounted with the plane of the dial vertical, and either parallel or perpendicular to the main lever.
8. Round-shaped dial housing (see Figure 17) — mounted similarly to Component 7.
9. Single weight dial and flash dial (see Figures 14, 15 and 16) — the width of the graduations is greatest at the centre of the dial and decreases uniformly towards each end. On each major graduation there is a window to allow the number on the flash dial to be viewed. The flash dial is positioned by a lever system connected to the range-changing mechanism.
10. Two weight dials and flash dials — one pair of dials as described in Component 9 is mounted on each side of the dial housing.
11. Single centre-zero dial and flash dial (see Figure 17) — is marked with graduations either side of zero and has a window above the zero mark in which the weight setting of the range-changing mechanism is indicated on the flash dial.
12. Two centre-zero dials and flash dials — one pair of dials as described in Component 11 is mounted on each side of the dial housing.
13. Weight dial — as described in Components 9, 10, 11 and 12,

except that the flash dial is not fitted and the principal graduation-line numbers are printed directly on the dial.

GENERAL NOTES

Test Procedure

The single cylindrical weight of the range-changing mechanism described in Component 2 must be tested for concentricity. Move the weight to the highest range and apply a suitable load to the load receptor; rotate the weight to at least four positions through the aperture in the case. The reading must be correct at each position.



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/7

VARIATION No 1

Pattern: Suprema K2, K4 and K6 Weighing Instruments

Submittor: J. W. Wedderburn & Sons Pty Ltd,
90 Parramatta Road,
Summer Hill, New South Wales, 2130.

Date of Approval of Variation: 8 December 1975

The modification described in this Schedule applies to the patterns described in Certificate No 6/4C/7 dated 3 July 1973.

All instruments conforming to this approval shall be marked "NSC No 6/4C/7".

Description:

The approved modification provides for a graduated and an ungraduated tare bar on opposite sides of the instrument (see Figure 18). The weight reading face is at right angles to both tare bars.

FIGURE 6/4C/7 - 1

1	2	3	4	5	6	7	8	9
	COMPONENTS	DATE APPROVED	FOOT-NOTES	PATTERN K6	VARIANTS			
					Suprema	K2	K4	K6
	<u>BASEWORK COMPONENTS</u>							
1	Lever system with multiple weights (Figures 3, 4 & 5)	25 JUN 73		*				*
2	Lever system with single movable weight (Figures 6, 7, 8 & 9)	25 JUN 73			A	A	A	
3	Lever system with fixed weight (Figure 10)	25 JUN 73	3		A	A	A	
4	Graduated tare bar (Figures 11 & 12)	25 JUN 73	1, 2		‡	‡	‡	‡
5	Ungraduated tare bar (Figure 13)	25 JUN 73	1, 2		‡	‡	‡	‡
	<u>HEADWORK COMPONENTS</u>							
6	Pendulum-resistant mechanism (Figures 14 & 15)	25 JUN 73		*	*	*	*	*
7	Fan dial housing (Figure 16)	25 JUN 73		*	B	B	*	*
8	Round dial housing (Figure 17)	25 JUN 73			B	B		
9	Single weight and flash dials (Figures 14, 15 & 16)	25 JUN 73	2		C	C	C	C
10	Two weight and flash dials	25 JUN 73		*	C	C	C	C
11	Single centre-zero weight and flash dials (Figure 17)	25 JUN 73	2		C	C	C	C
12	Two centre-zero weight and flash dials	25 JUN 73	2		C	C	C	C
13	Weight dial	25 JUN 73	3		C	C	C	

- * - indicates required component
- A - indicates alternative component, one of which is required
- B, C - as for A
- ‡ - indicates optional component

FOOTNOTES

- 1 - instruments must be fitted with only one tare bar and have a single dial on the same side as the tare bar
- 2 - instruments must be marked "not for retail counter use"
- 3 - variants which include Component 3 must include Component 13 and vice versa

Compatibility Table for Components Described
in this Certificate

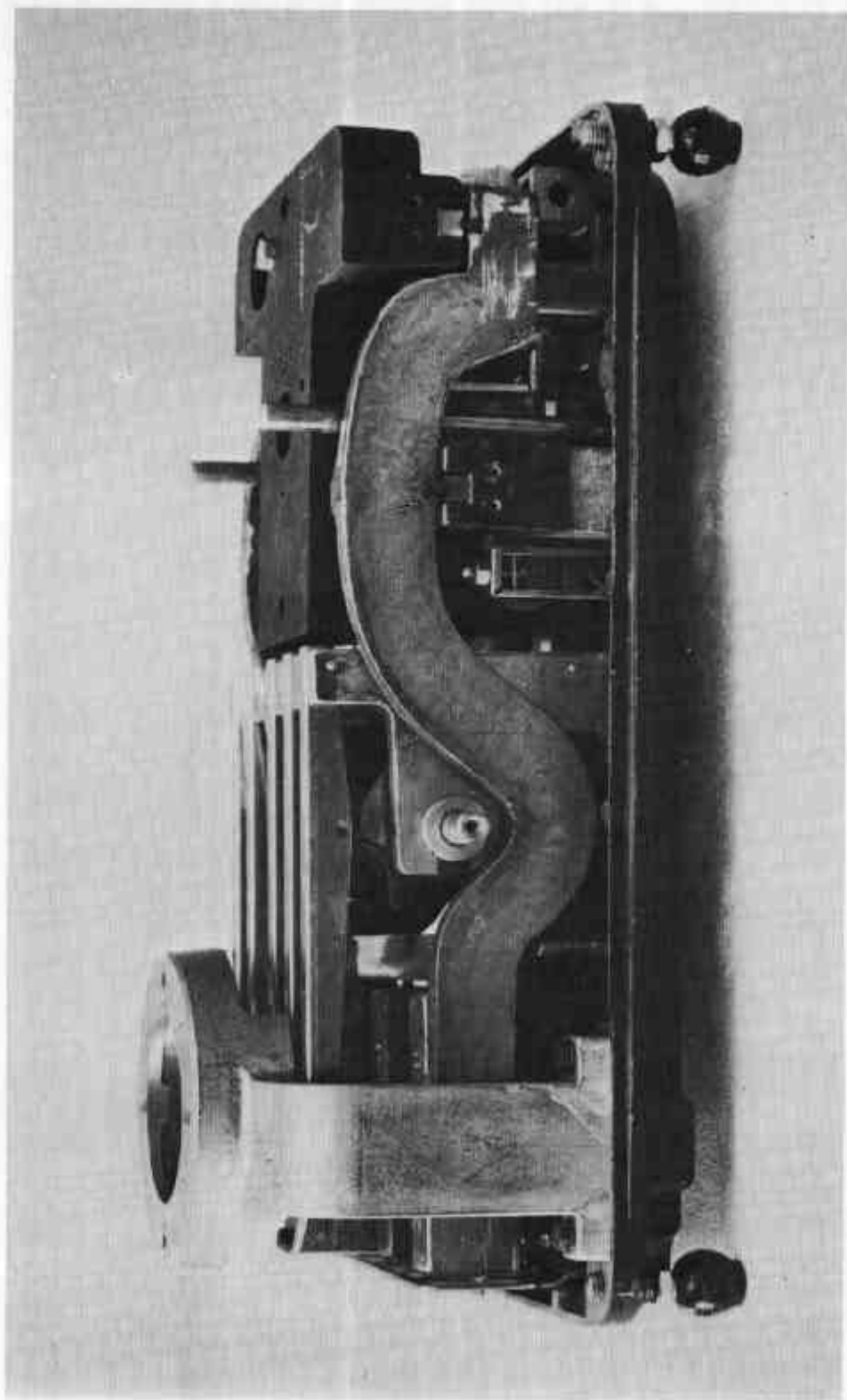
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FIGURE 6/4C/7 - 2



Suprema Model K6 Self-indicating Weighing Instrument
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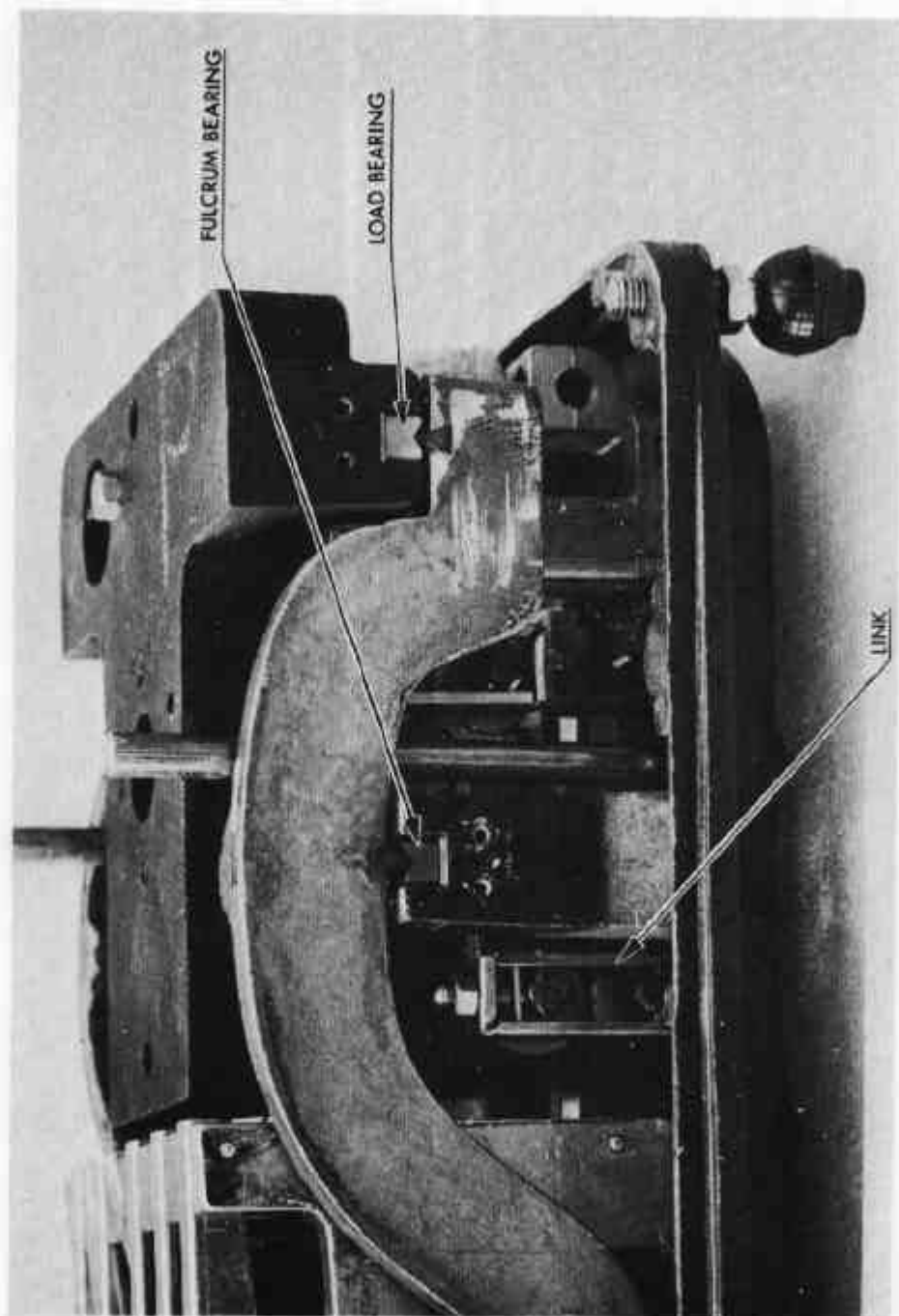
FIGURE 6/4C/7 - 3



Lever System with Multiple Weight Range-changing Mechanism

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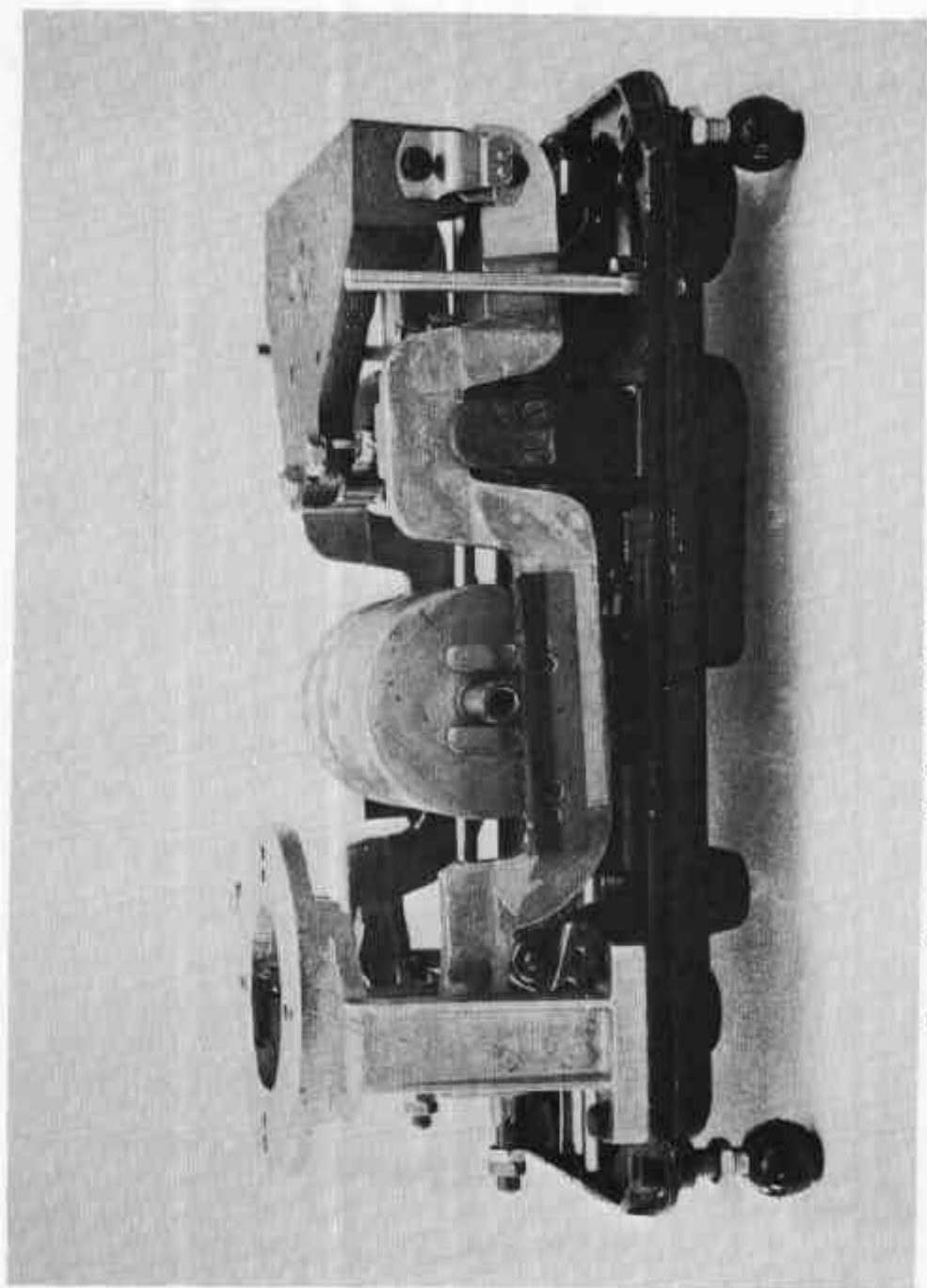
FIGURE 6/4C/7 - 5



Details of Load and Fulcrum Bearings (without Friction Plates)
and Secondary Lever Links for Lever Systems with
Multiple Weight Range-changing Mechanism

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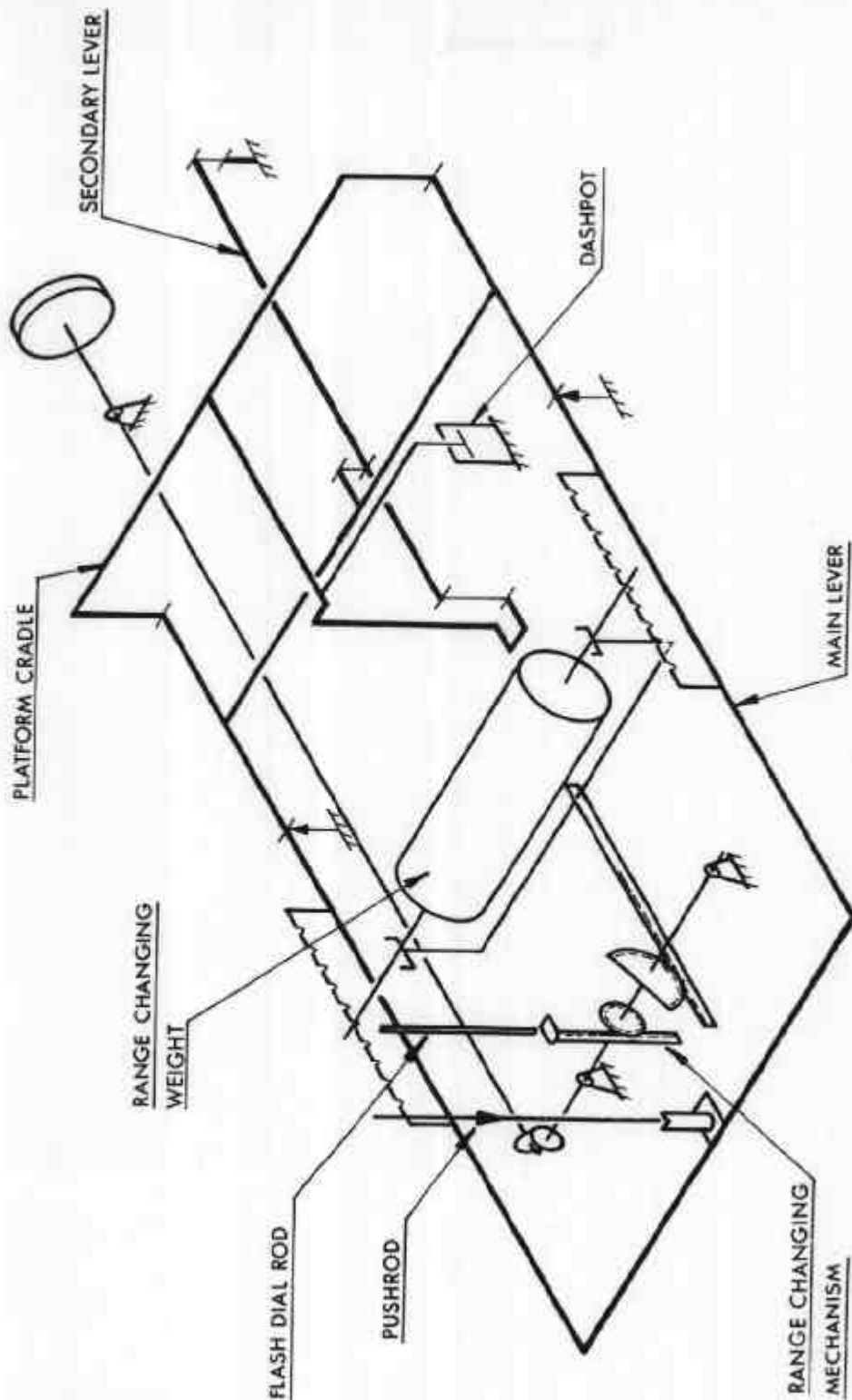
FIGURE 6/4C/7 - 6



Lever System with Single Weight Range-changing Mechanism

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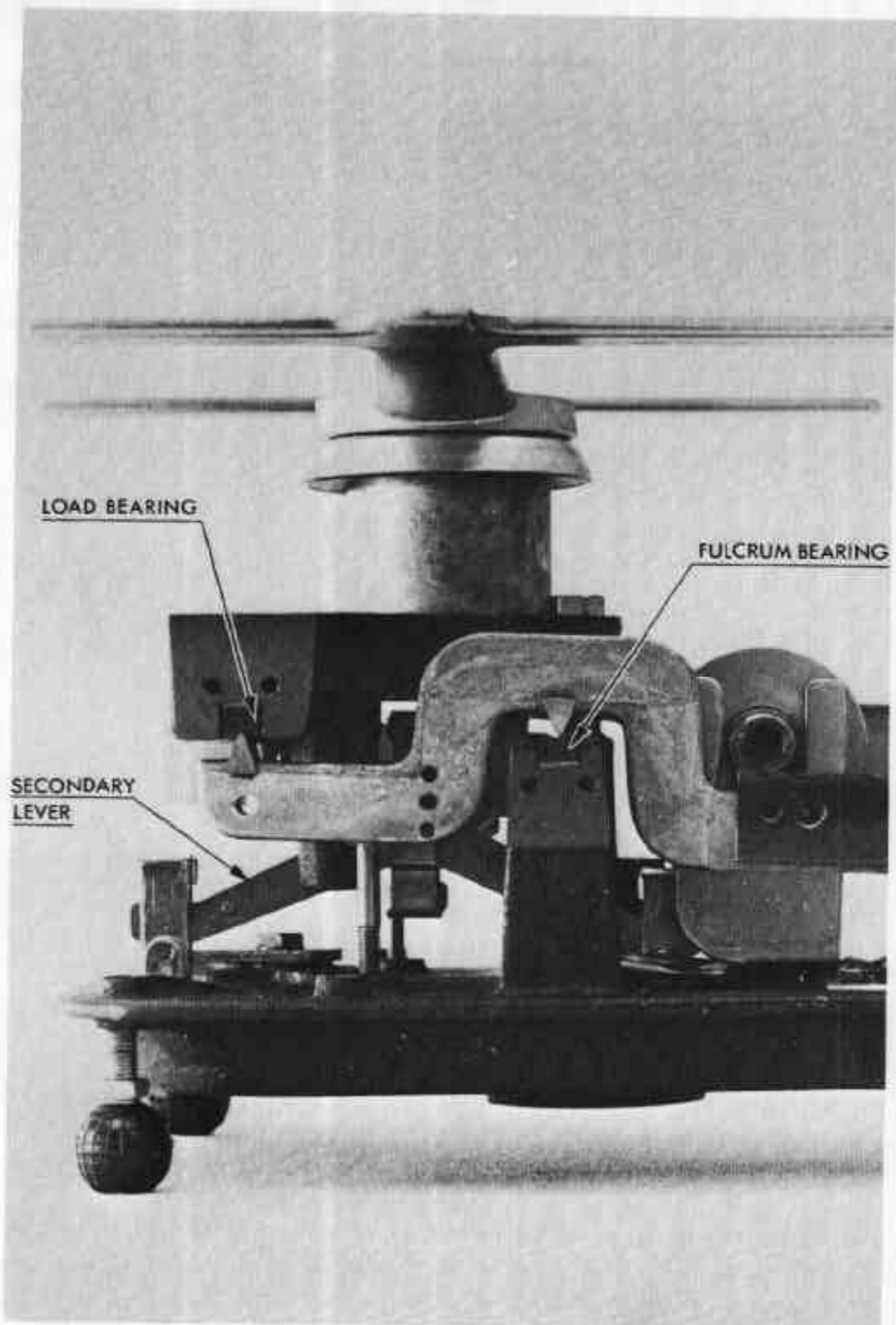
FIGURE 6/4C/7 - 7



Lever System with Single Weight Range-changing Mechanism -
Schematic Diagram

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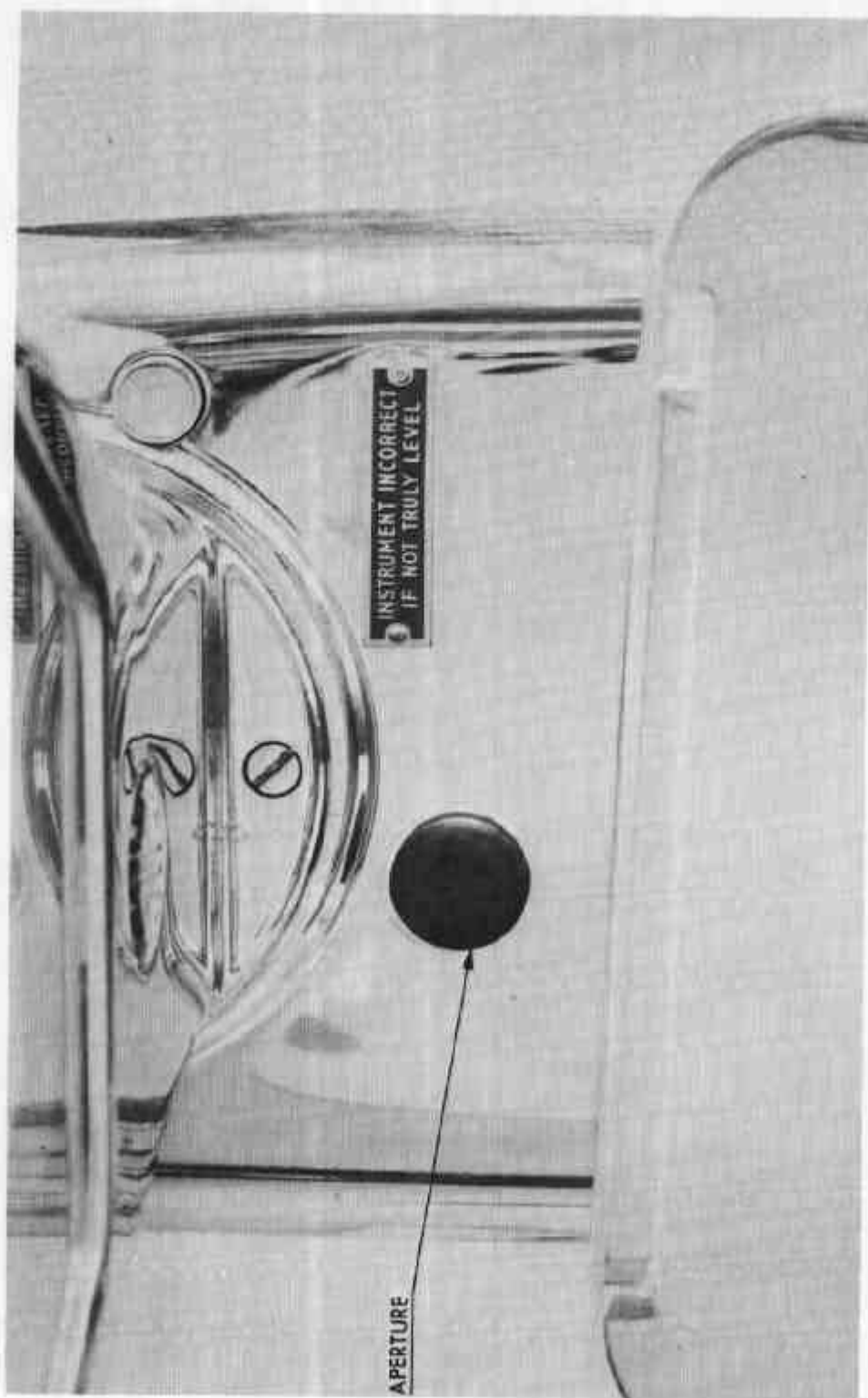
FIGURE 6/4C/7 - 8



Details of Load and Fulcrum Bearings and Secondary Lever
for Lever System with Single Weight Range-changing
Mechanism

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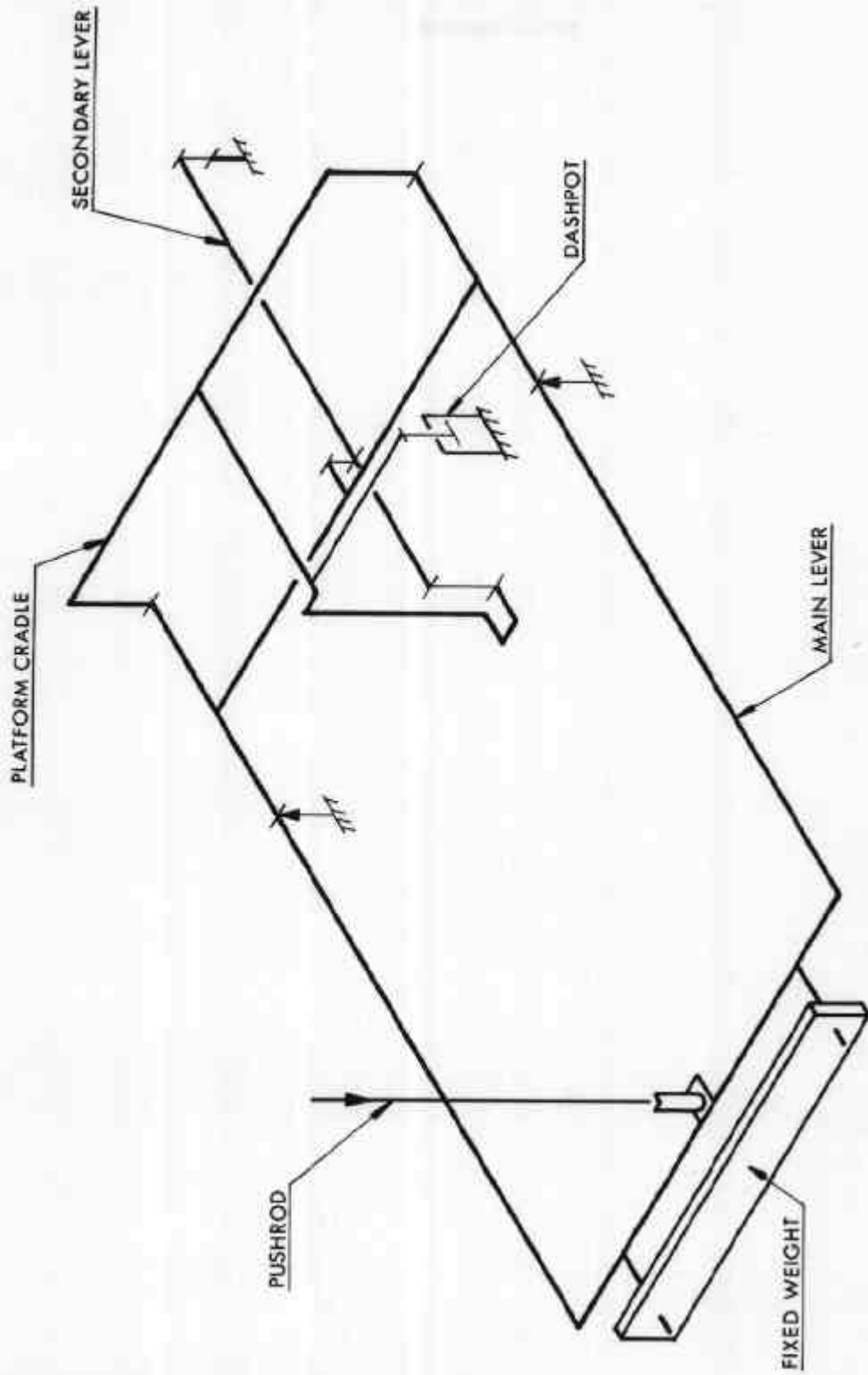
FIGURE 6/4C/7 - 9



Aperture for Checking Weight Concentricity of Single
Cylindrical Weight

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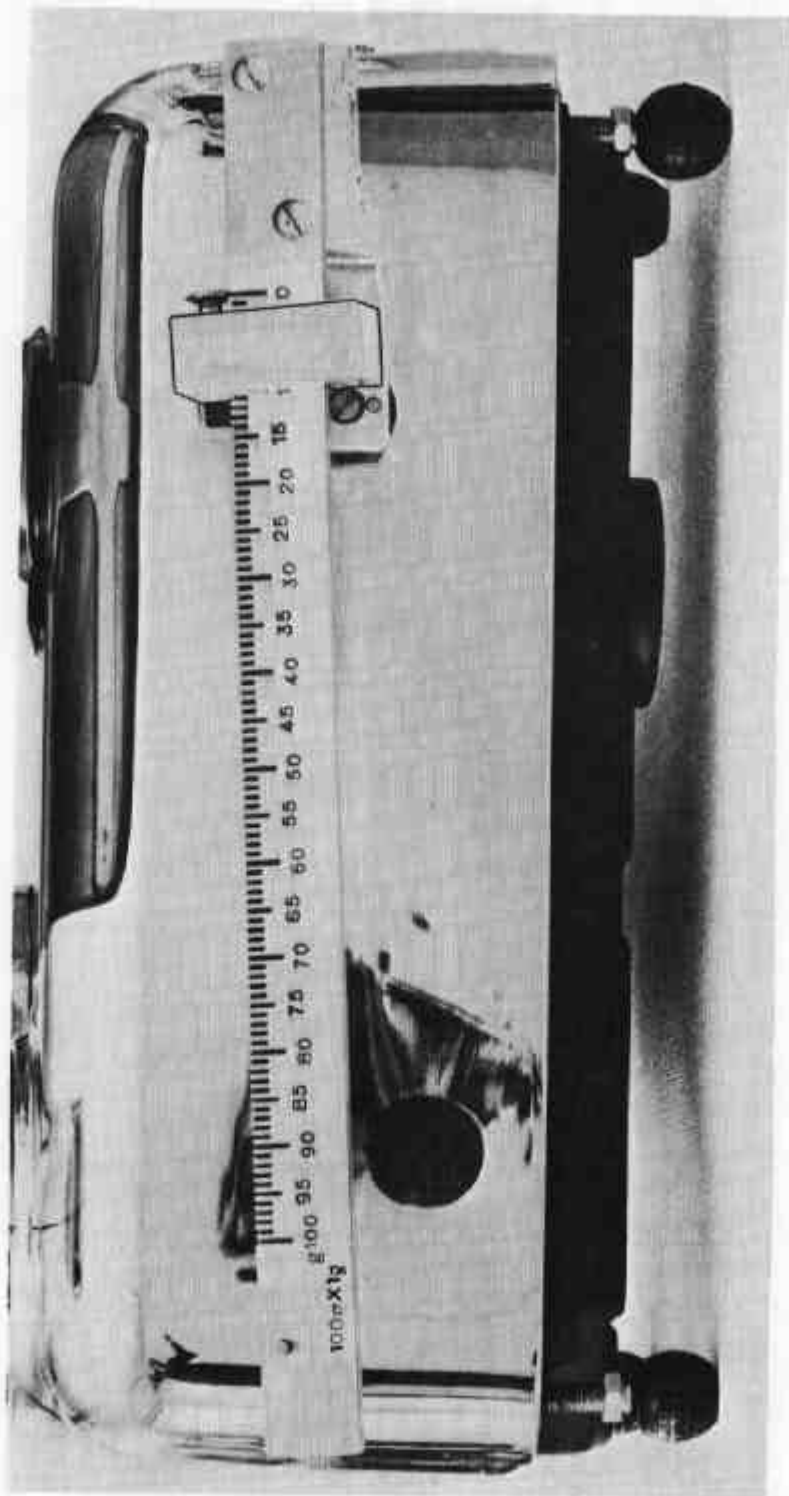
FIGURE 6/4C/7 - 10



Lever System with Fixed Weight — Schematic Diagram

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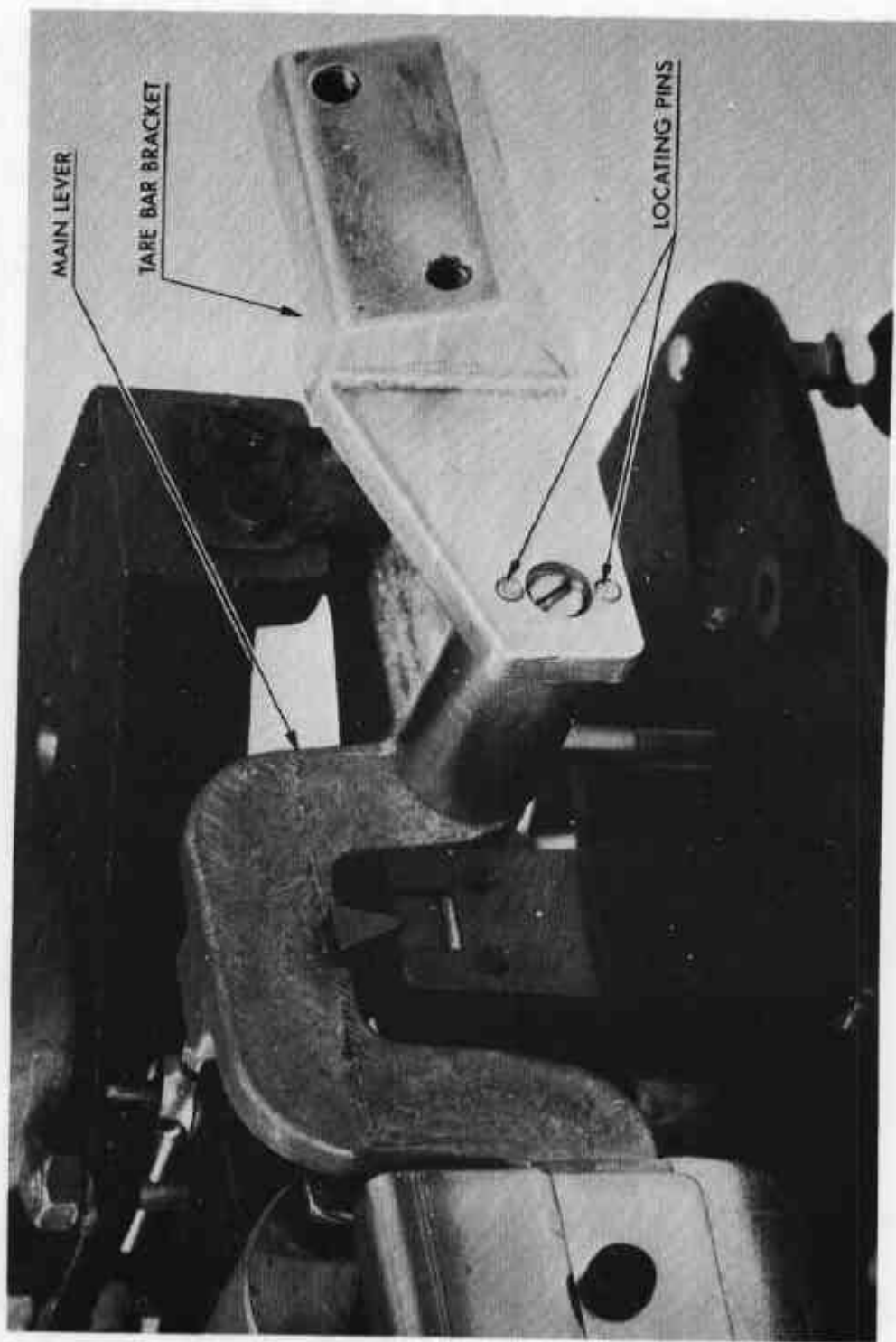
FIGURE 6/4C/7 - 11



Graduated Tare Bar

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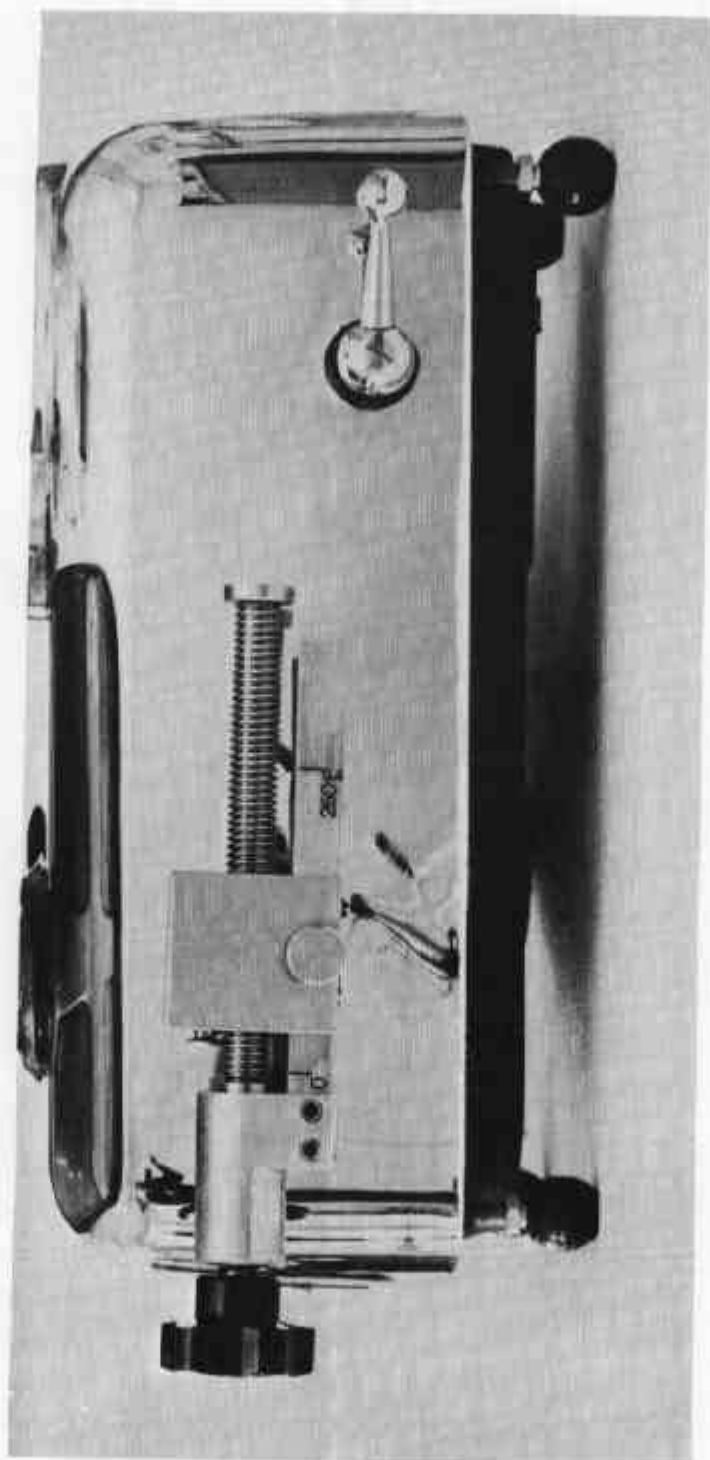
FIGURE 6/4C/7 - 12



Details of Tare-bar Mounting on Main Lever

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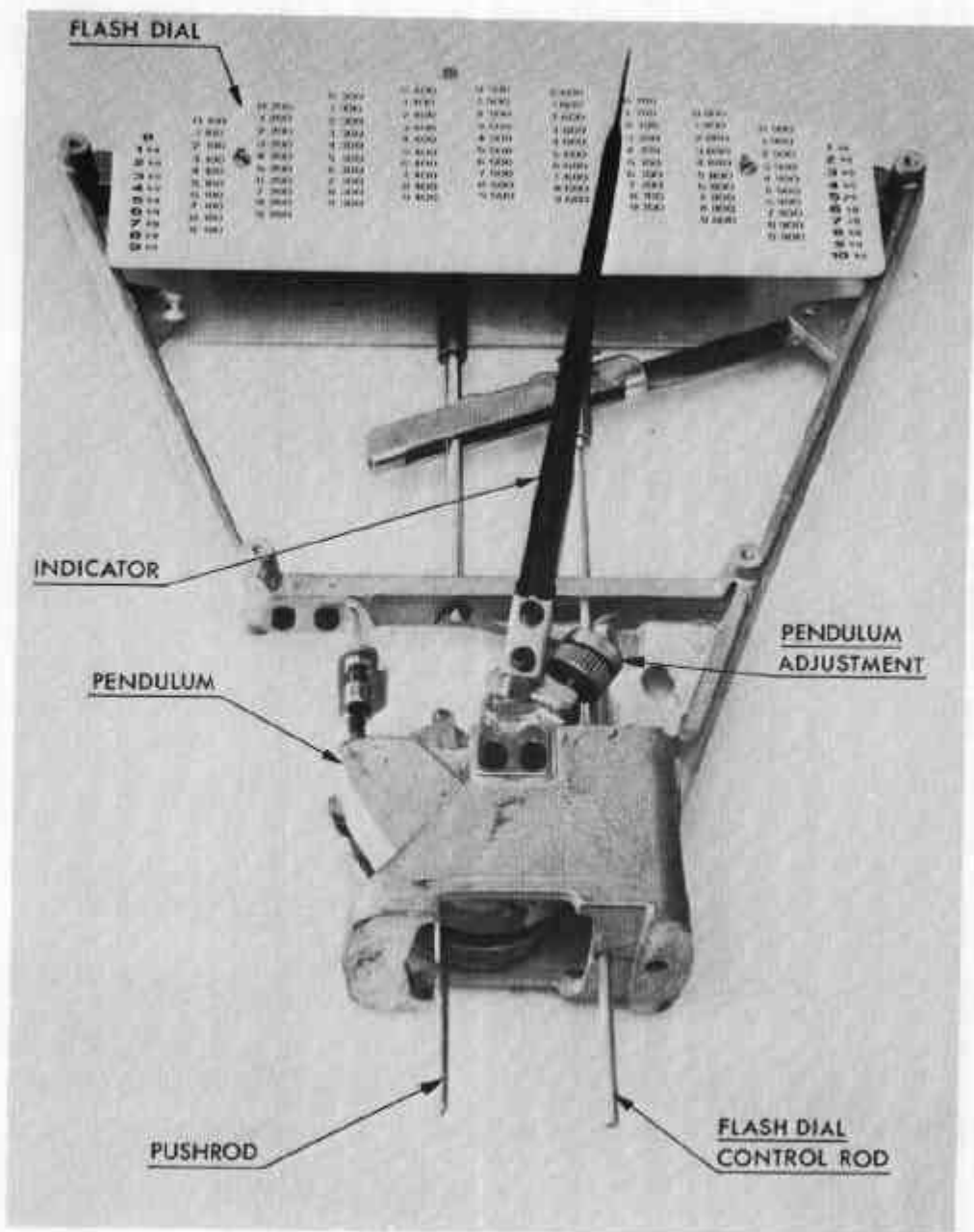
FIGURE 6/4C/7 - 13



Ungraduated Tare Bar

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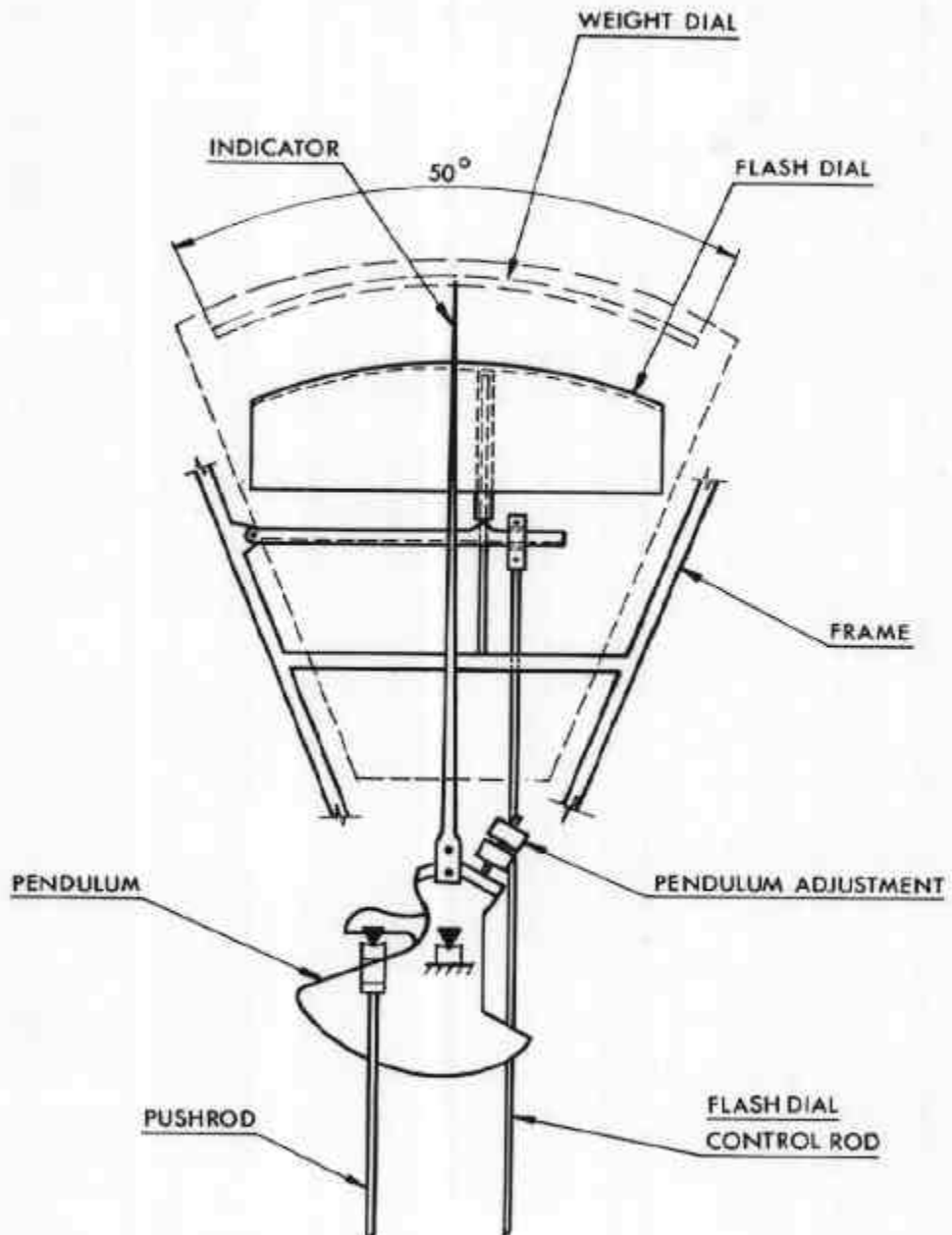
FIGURE 6/4C/7 - 14



Pendulum-resistant Mechanism and Flash Dial

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FIGURE 6/4C/7 - 15



Pendulum-resistant Mechanism — Schematic Diagram

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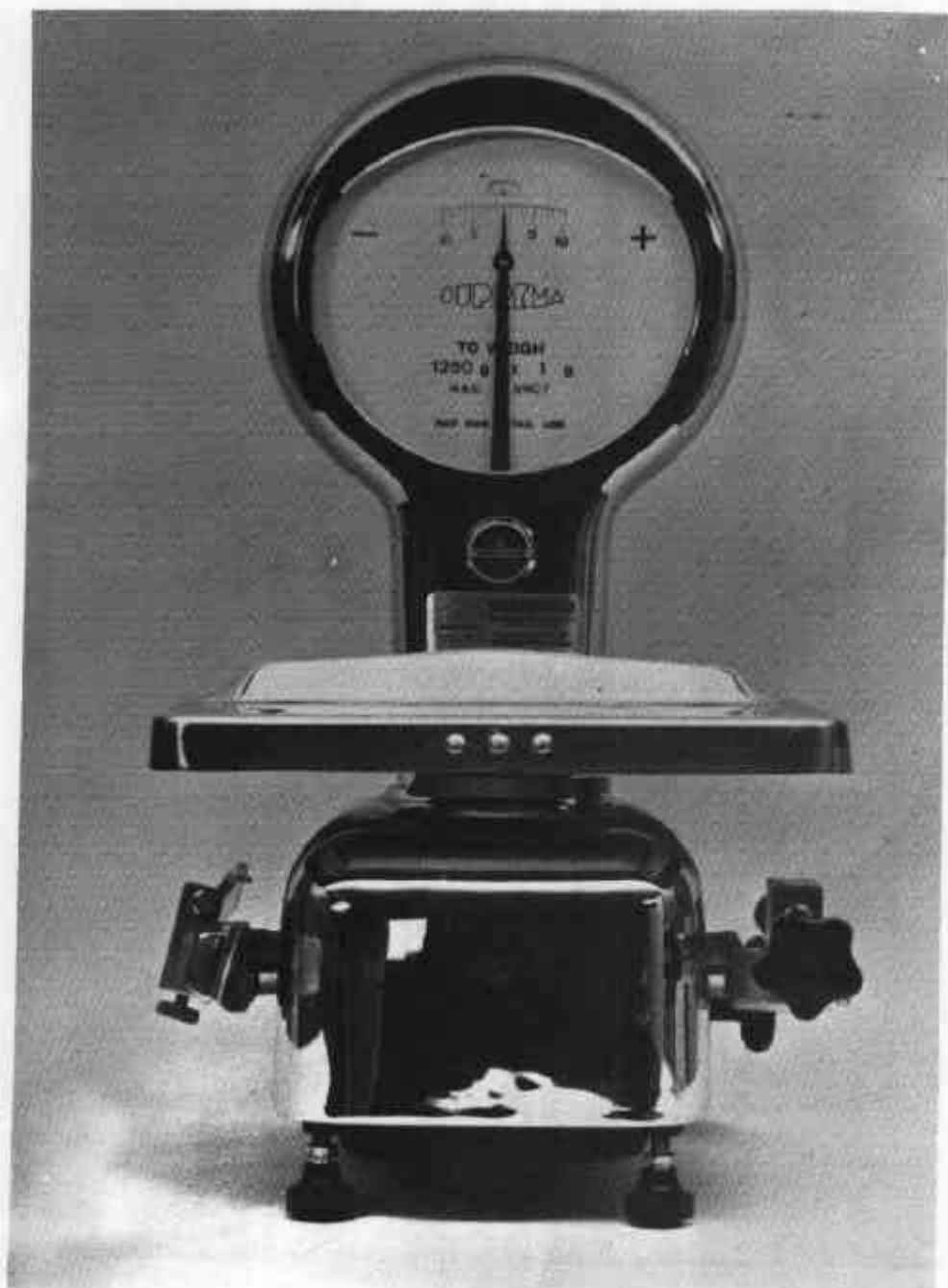
FIGURE 6/4C/7 - 16



Fan-shaped Dial Housing and Dial

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FIGURE 6/4C/7 - 18



Suprema with Tare Bars

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