

CERTIFICATE OF APPROVAL No 6/9C/3

VARIATION No 1

This is to certify that the following modifications of the pattern and variants of the
Howe Richardson Self-indicating Weighing Instrument

approved in Certificate No 6/9C/3 dated 16 February 1970

submitted by Howe Richardson Scale Co. Pty Ltd, Denney Street, Broadmeadow,
New South Wales, 2292,

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

The approved modifications are:

1. the dial having up to 3,5 graduations per degree;
2. fitting a fabricated basework lever system of maximum capacity 410 kg;
3. fitting a fabricated basework lever system of maximum capacity 1500 kg;
4. fitting a fabricated dial housing; and
5. converting all weighing instrument models to indicate in metric units in accordance with Appendix 8 of the General Specifications for Measuring Instruments to be Used for Trade.

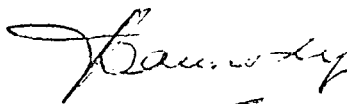
Approval was granted on 17 May 1974.

This variation is described in Technical Schedule No 6/9C/3, Variation No 1, and in drawings and specifications lodged with the Commission.

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

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/9C/3".

Signed



Executive Officer

Indexed

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COMMONWEALTH OF AUSTRALIA

NATIONAL STANDARDS COMMISSION

Weights and Measures
(National Standards)
Act 1960-1964

Weights and Measures
(Patterns of Instruments)
Regulations

Certificate of Approval

CERTIFICATE NUMBER 6/9C/3

In respect of the pattern of

Howe Richardson Self-indicating Portable Platform Weighing Machine
and Variants 1 to 10.

Submitted and

manufactured by: Howe Richardson Scale Co. Pty. Ltd.,
Ailsa Road and Denney Street,
Broadmeadow,
New South Wales. 2292.

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.

Approval was granted for:

1. The pattern and variants 1 and 5 on 19th October, 1966.
2. Variants 2, 3, 4, 6, 7, 8, 9 and 10 on 10th February, 1970.

Approval was granted on condition that:

1. All instruments made in conformity with the pattern or its variants:
 - (a) are appropriately marked NSC No 6/9C/3; and

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Cont'd over

- (b) comply with the General Specifications for Weighing and Measuring Instruments to be Used for Trade.
2. Variant 1 is limited to the instrument fitted with a nameplate marked
- "Howe Richardson Scale Co
Rutland Vermont
Model No 5800
Serial No 66 02308".

This Certificate comprises:

Pages 1 to 5 dated 16th February, 1970.
Figures 6/9C/3 - 1 to 9 dated 16th February, 1970.

Date of issue 16th February, 1970.

Signed



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

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DESCRIPTION OF PATTERN

The pattern (see Figure 1) is a self-indicating portable platform weighing machine of 700 lb capacity which comprises the following components:

Baseworks. These comprise a platform carried on four parallel-link suspension units fitted with self-aligning bearings (see Figure 2) supported by one long and one short second-order main lever (see Figures 3 and 4) which are carried on four fulcrum stands fitted with self-aligning bearings (see Figure 2) attached to a frame which is mounted on four wheels, two of which can be locked by a handle at the rear of the headworks cabinet. The nose-end of the long-armed main lever is coupled to a pullrod in the headworks cabinet.

Headworks. These comprise a Type 32000 cabinet surmounted by a dustproof dial housing.

In the cabinet the pullrod is coupled to a main headworks lever (see Figure 5) to which is fitted a zero adjustment, an oil dashpot and a covered balance weight which is provided with adjustment for sensitivity. To the front of the main headworks lever is fitted a tare bar of capacity 100 lb by 1 lb graduations.

The main headworks lever is coupled through a pullrod which is fitted with an oil seal, to a double-pendulum resistant mechanism (see Figure 6) in which the indicator shaft is rotated from one of the pendulums through a system of steel ribbons fixed to and passing over sector drums (see Figure 7).

A handle on front and in the neck of the dial housing operates a device which locks the pendulum-resistant mechanism. A legend is attached indicating the "lock" and "free" positions of the handle.

A fixed circular dial of capacity 600 lb by 1 lb graduations with horizontally orientated denominations and weight values is

mounted in the dial housing.

DESCRIPTION OF VARIANTS

1. Having a dial with radially-orientated denominations and weight values and of capacity 600 lb by 1 lb graduations, baseworks levers as shown in Figure 9, and a tare bar of capacity 100 lb by 8 oz graduations with a hinged glass-fronted cover fitted with two key-operated locks (see Figure 8).
2. In other capacities up to 4500 lb, provided that the dial does not have more than 600 graduations.
3. Having the headworks fitted with two dials, one in the front and one in the back of the dial housing, provided no tare bars or locking device are fitted.
4. With more than one tare bar or without tare bars.
5. Without wheels fitted to the frame.
6. Having the headworks fitted with a photo-electric switch described in Certificate No 6/10B/1.
7. Having the headworks fitted with a centre-zero dial in place of the circular dial.
8. Having the baseworks fitted with a full-capacity steelyard headworks described in Certificate No 6/10A/1, in place of the self-indicating headworks.
9. Without the locking device fitted to the rear wheels.
10. Having the self-indicating headworks fitted with the Howe

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Richardson M-R Printer, as described in Certificate No 6/10B/1.

GENERAL NOTES

Notice of approval of the pattern and variants 1 and 5 was given in Memorandum of Approval No 29A dated 28th February, 1969.

No previous notice of approval has been given for variants 2, 3, 4, 6, 7, 8, 9 and 10.

Notice of approval of the photo-electric switch and M-R Printer approved in Certificate No 6/10B/1, referred to in variants 6 and 10, was given in Memorandum of Approval No 67 dated 22nd May, 1967.

Notice of approval of the full-capacity steelyard approved in Certificate No 6/10A/1, referred to in variant 8, was given in Memorandum of Approval No 51 dated 4th January, 1967.

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NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9C/3

VARIATION No 1

Pattern: Howe Richardson Self-indicating Weighing Instrument

Submitter: Howe Richardson Scale Co. Pty Ltd,
Denney Street,
Broadmeadow, New South Wales, 2292.

Date of Approval of Variants: 17 May 1974

The modifications described in this schedule apply to the pattern and variants described in the following pages and figures of Certificate No 6/9C/3 dated 16 February 1970:

Pages 3 to 5 dated 16 February 1970

Figures 6/9C/3 - 1 to 9 dated 16 February 1970

Note: The headwork with radially orientated denominations and weight values and with 8-oz graduations on the tare bar as described in Certificate No 6/9C/3 dated 16 February 1970, is limited to the one instrument Serial No 6602308.

All instruments conforming to this approval shall be marked "NSC No 6/9C/3".

Description:

This variation approves:

1. The dial having up to 3,5 graduations per degree (that is, 1200 graduations maximum). A level indicator is fitted to instruments with more than 600 graduations (see Figure 10).
2. Fitting a fabricated basework lever system of maximum capacity 410 kg (see Figures 11 and 12). The knife-edge shanks are held in the levers by hardened cup-pointed square-headed set screws. The

basework is fitted with wheels and four levelling feet (see Figure 10).

3. Fitting a fabricated basework lever system of maximum capacity 1500 kg, similar to the basework illustrated in Figures 11 and 12. The knife-edge shanks are threaded and held in the levers by a nut screwed on to the thread.
4. Fitting a fabricated dial housing (see Figure 13).
5. Converting all models to indicate in metric units in accordance with Appendix 8 of the General Specifications for Measuring Instruments to be Used for Trade.

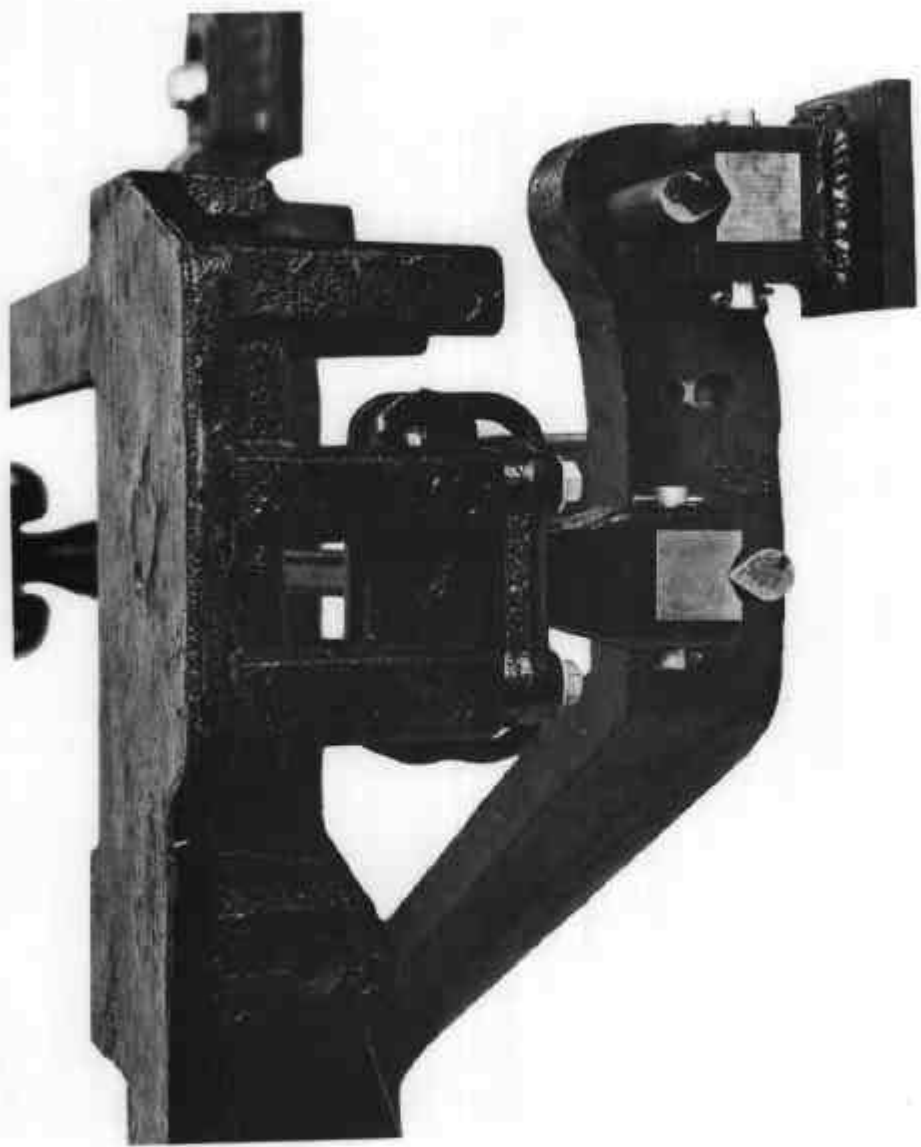
FIGURE 6/9C/3 - 1



Howe Richardson Self-indicating Portable
Platform Weighing Machine

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FIGURE 6/9C/3 - 2



Suspension Unit and Fulcrum Stand

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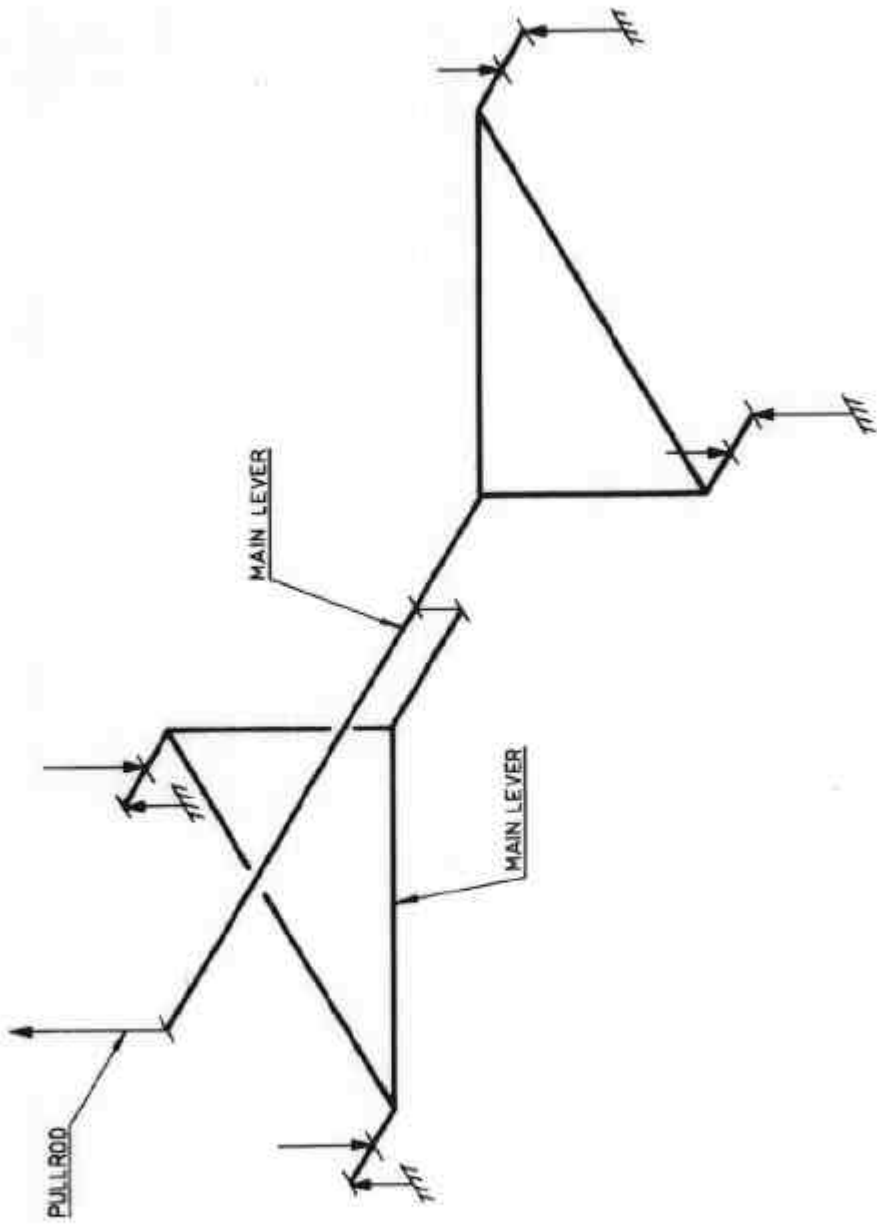
FIGURE 6/9C/3 - 3



Main Levers

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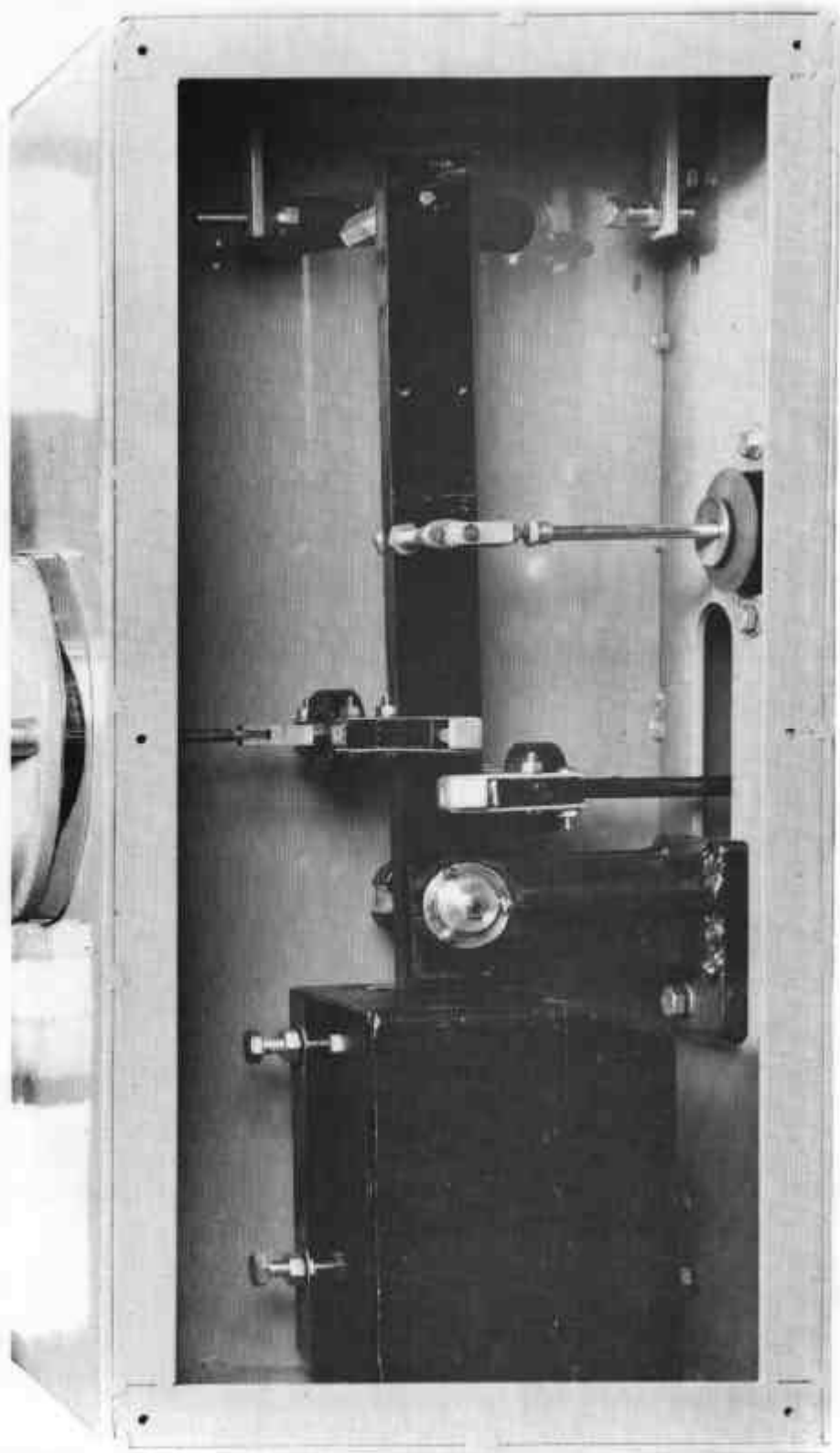
FIGURE 6/9C/3 - 4



Lever Mechanism

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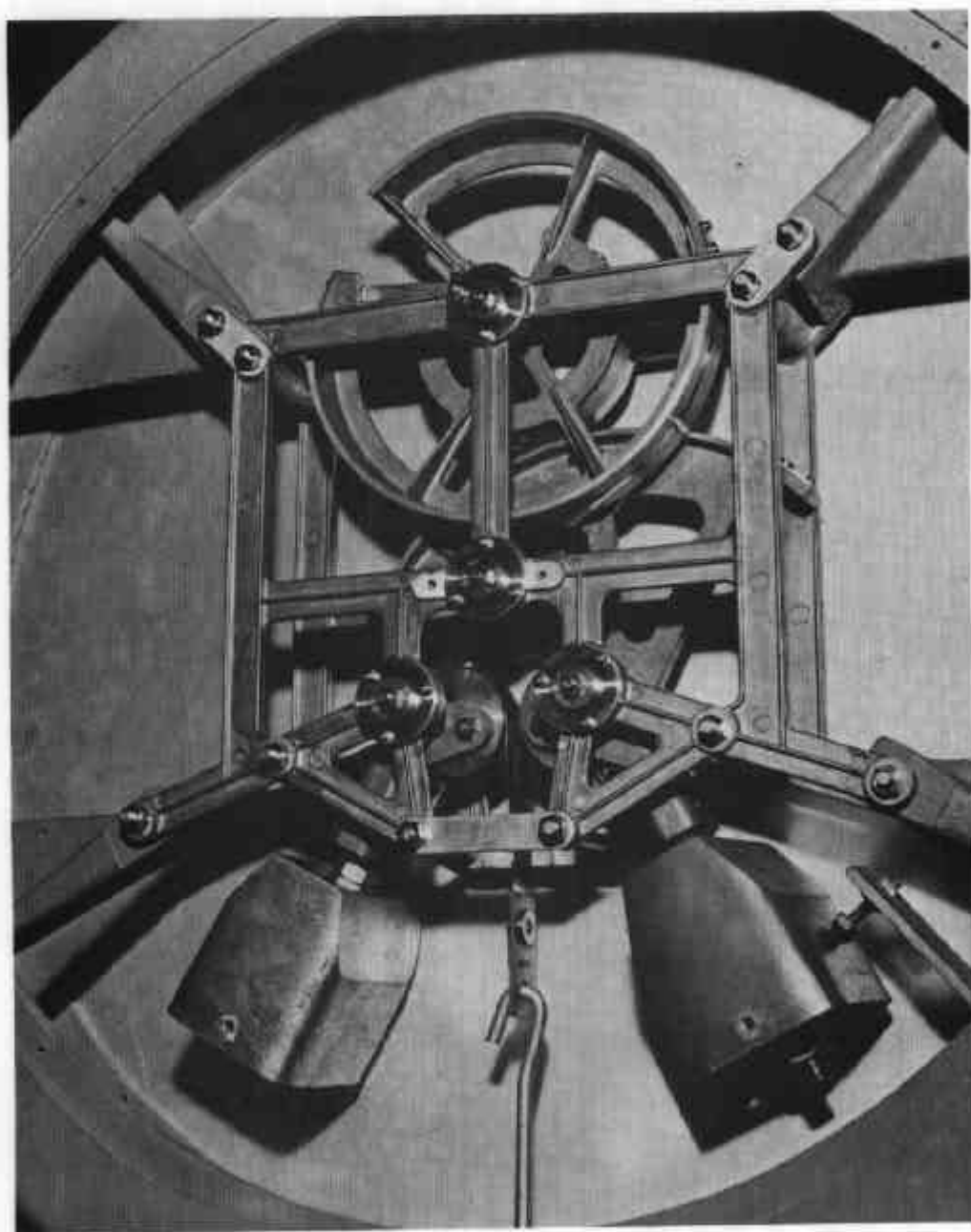
FIGURE 6/9C/3 - 5



Main Headworks Lever

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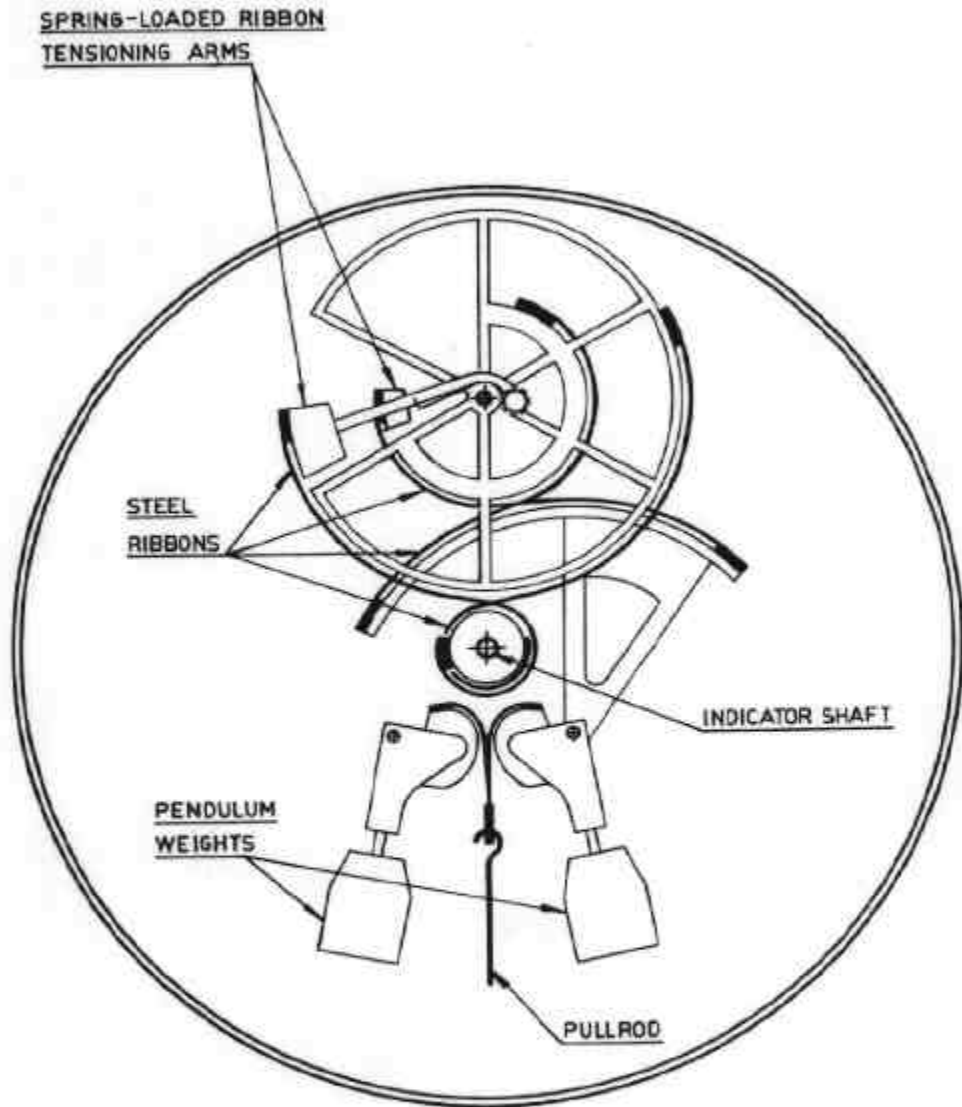
FIGURE 6/9C/3 - 6



Double-pendulum Resistant Mechanism

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FIGURE 6/9C/3 - 7



NOTE: RIBBONS SHOWN CLEAR
OF SECTORS

Double-pendulum Resistant Mechanism

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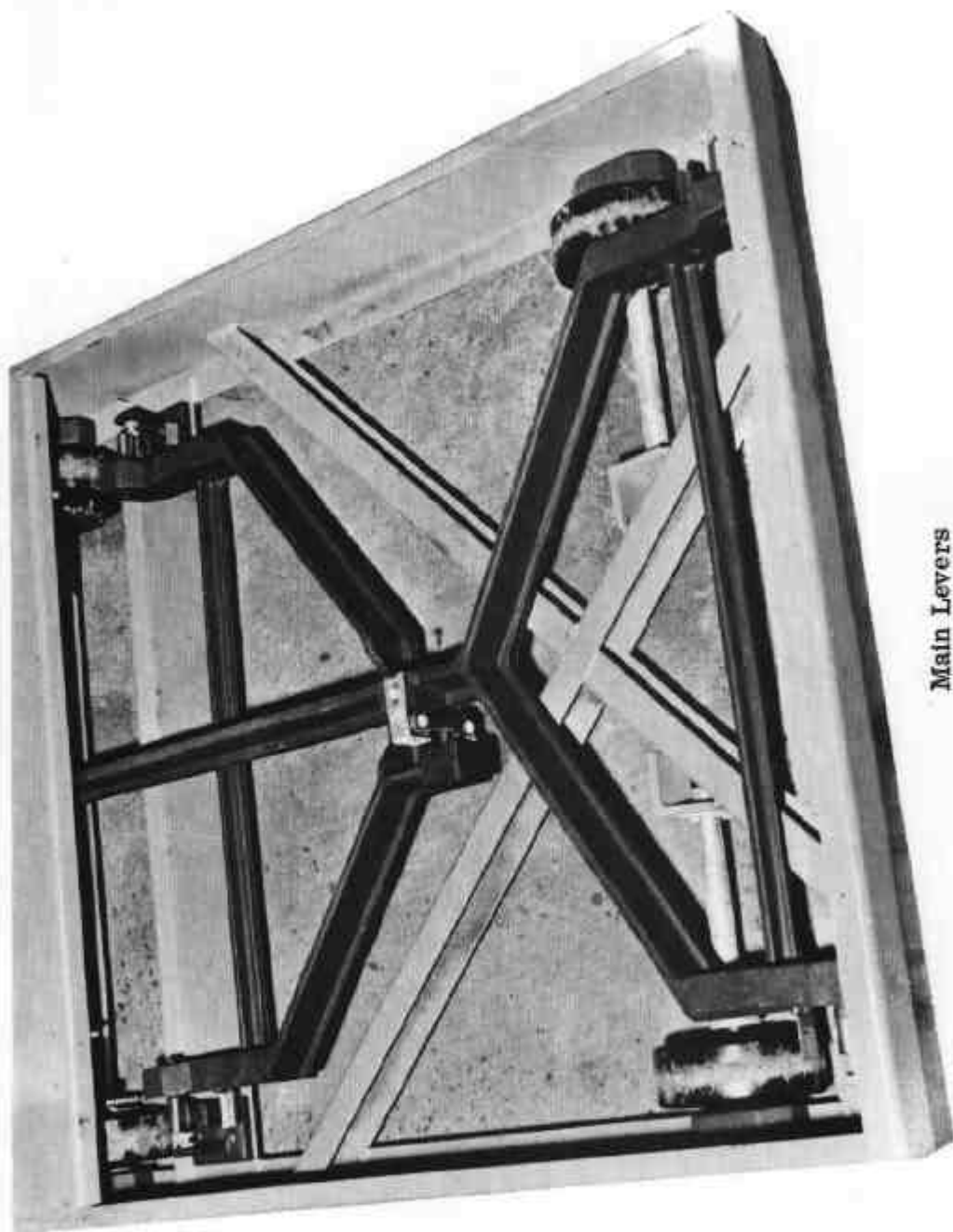
FIGURE 6/9C/3 - 8



Howe Richardson Self-indicating Portable
Platform Weighing Machine

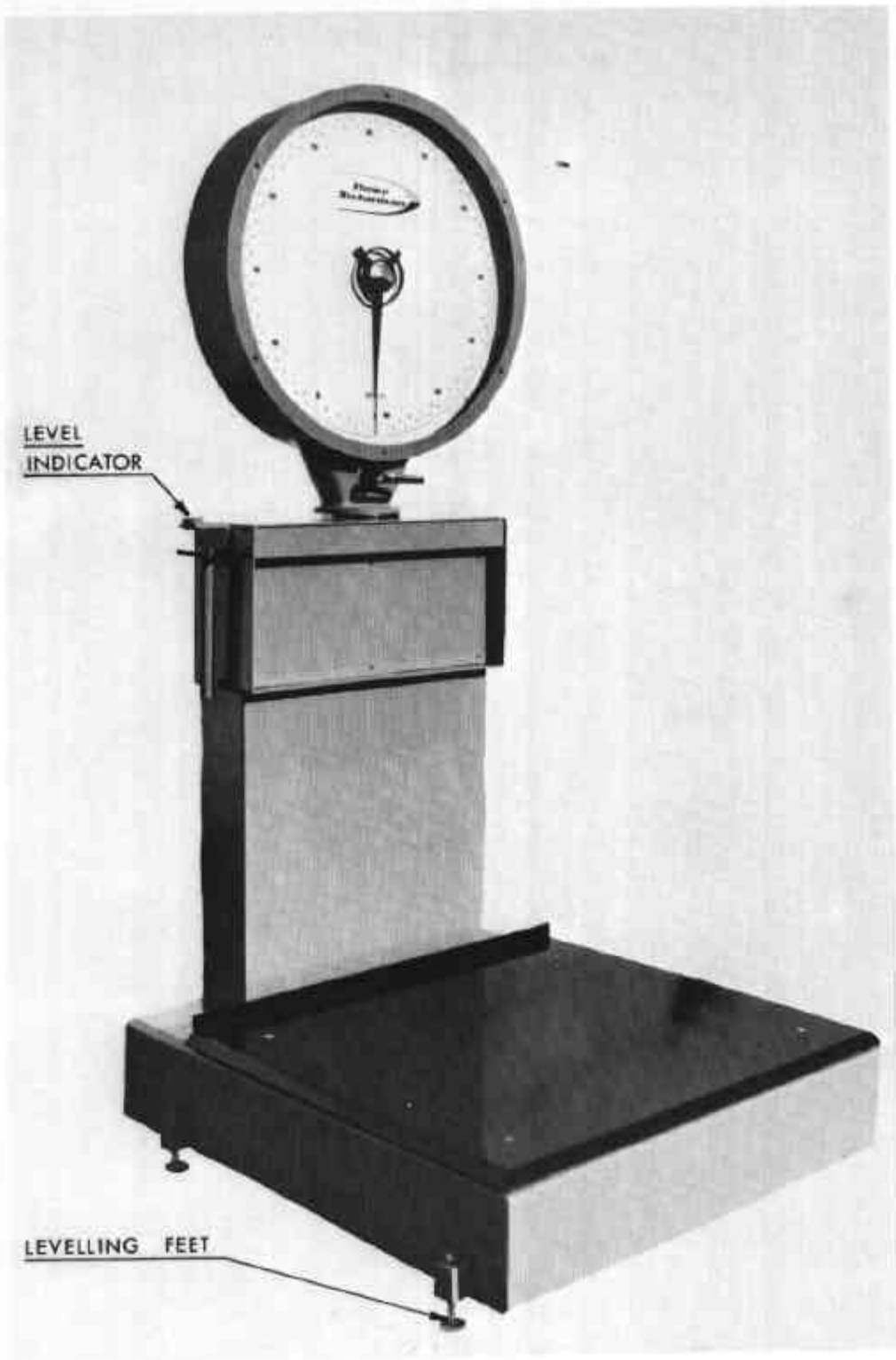
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FIGURE 6/9C/3 - 9



Main Levers

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Howe Richardson Portable Platform Scale

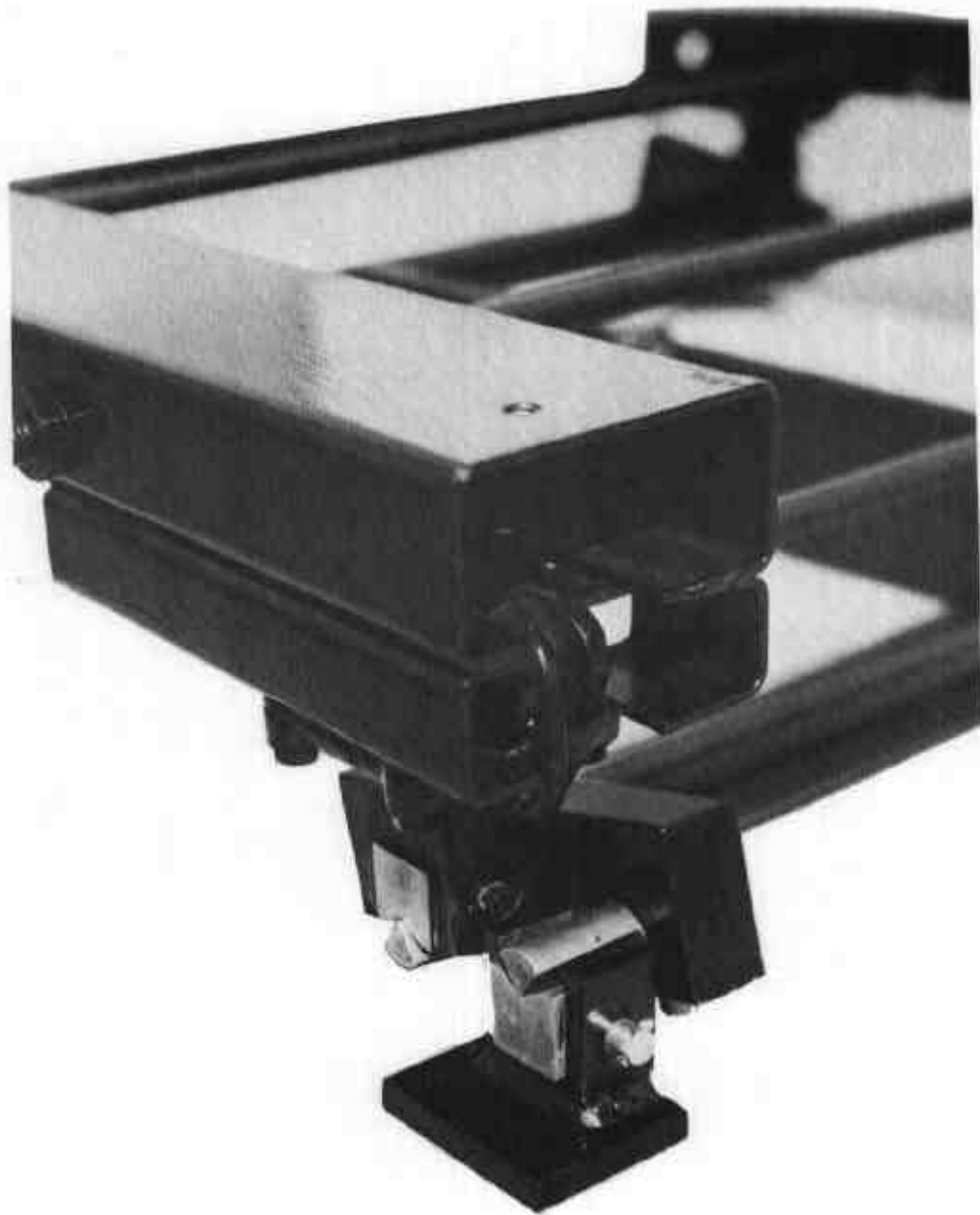
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FIGURE 6/9C/3 - 11



Fabricated Lever System

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Knife-edges, Bearings, Platform Suspension — Fabricated
Lever System
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FIGURE 6/9C/3 - 13



Resistant Mechanism and Fabricated Dial Housing

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