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CERTIFICATE OF APPROVAL No 6/9A/5

VARIATION No 1

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

Avery Weighing Instrument Model 3550/ABW

approved in Certificate No 6/9A/5 dated 29 May 1973

submitted by Avery Australia Ltd,
3-5 Birmingham Avenue,
Villawood, New South Wales, 2163,

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

Date of Approval: 26 November 1976

The approved modification, described in Technical Schedule No 6/9A/5 - Variation No 1 and in drawings and specifications lodged with the Commission, provides for a maximum capacity of 130 kg.

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

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/9A/5".

Signed

Executive Officer

17/12/76

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 6/9A/5

In respect of the pattern of

Avery Non-self-indicating Weighing Instrument of 127-kg Capacity.

Submitted and
manufactured by:

Avery Australia Ltd,
3-5 Birmingham Avenue,
Villawood,
New South Wales. 2163.

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

The pattern was approved on 23 May 1973.

The pattern is marked "NSC No 6/9A/5" and complies with the General Specifications for Measuring Instruments to be Used for Trade.

Cont'd over

This Certificate comprises:

Pages 1 to 4 dated 29 May 1973.
Figures 6/9A/5 - 1 to 10 dated 29 May 1973.

Date of issue 29 May 1973.

Signed

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

DESCRIPTION OF PATTERN

The pattern (see Figure 1) is of a non-self-indicating weighing instrument of 127-kg capacity and known as an Avery Type 3550/ABW. The steelyard comprises a major poise and scale graduated to 120 kg x 5 kg, a minor poise and scale graduated to 5 kg x 50 g, and a tare poise with an ungraduated scale of 2 kg.

The basework lever system is shown in Figures 2, 3 and 4.

The platform contains four self-aligning bearings fitted with nylon collars that clip into seating holes drilled in the platform. One bearing is adjustable by means of a knurled nut. Bolted to the underside of the platform is a bracket which projects under the baseframe to prevent excessive movement of the platform.

The platform bearings are supported on four cantilevered load knife-edges of two second-order main levers. The fulcrum knife-edges seat in self-aligning bearings located in four links suspended from the baseframe. The long main lever has an integrally cast balance box and is coupled to the short lever by a link fitted with two self-aligning bearings. All basework knife-edges include a friction knife-edge and are secured in the levers by means of hardened cup-pointed square-headed $\frac{1}{4}$-inch set screws. These set screws are tightened to a minimum torque of 6.0 N.m.

The nose-end knife-edge of the long lever is connected by a pullrod to an intermediate lever in the headwork (see Figure 5), which is then connected to the steelyard by another pullrod. The intermediate lever has cast-in knife-edges and is supported by links and shackles. The shackles are hardened and form the self-aligning bearings for the lever knife-edges.

The headwork housing and its components are shown in Figures 6, 7 and 8.

The fulcrum and load knife-edges are cast into a block attached to the steelyard housing, the load knife-edge having removable friction knife-edges. The fulcrum knife-edges are supported on two self-aligning bearings which have adjustable friction pads. Sensitivity is adjusted by raising or lowering the knife-edge block by means of a self-locking nut on a threaded stud. A second nut on the opposite side

of the block holds it against the adjustment. The centre of gravity is adjusted by means of a weight on a threaded rod located below the fulcrum knife-edge; the weight is locked in position by a nut at both ends. A screwdriver-operated zero-balance weight is fitted at one end of the steelyard housing.

The major poise (see Figure 9) consists of a lead-filled housing with a screwed cup in which lead adjustment weight is secured. A saddle and nib assembly is secured to the housing by two hexagon-headed set screws and a self-locking spring pin. The saddle slides on a circular rod fixed to the steelyard housing. The round-shaped nib engages the V-notches of a bar located in the steelyard housing and pinned in place. The actuating handle of the major poise fits into corresponding notches of a bar which is graduated in 5-kg increments to 120 kg.

On the upper edge of the same bar a spring-loaded minor poise slides on a graduated scale of 5 kg x 50 g. A similar spring-loaded poise is located on the lower edge and has an ungraduated tare capacity of 2 kg.

A pointer in the steelyard housing corresponds to a pointer in the steelyard guide at the balanced position. Stops are located in the steelyard guide, the lower one being secured in place by a bracket (see Figure 10); the upper stop is set into the locking handle. The locking handle has a steel roller which holds the steelyard against the lower stop in the locked position.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9A/5

VARIATION No 1

Pattern: Avery Weighing Instrument Model 3550/ABW

Submittor: Avery Australia Ltd,
3-5 Birmingham Avenue,
Villawood, New South Wales, 2163.

Date of Approval of Variation: 26 November 1976

The modification described in this Schedule applies to the pattern described in Certificate No 6/9A/5 dated 29 May 1973.

All instruments conforming to this approval shall be marked "NSC No 6/9A/5".

Description:

The approved modification provides for a maximum capacity of 130 kg. The major poise has a range of 120 kg by 10-kg graduations, the minor poise has a range of 10 kg by 0,05-kg graduations and an ungraduated tare poise has a range of 2 kg.

The instrument is marked adjacent to the weight reading face:

(III)

Max	=	130 kg
Min	=	2,5 kg
d = e	=	0,05 kg
T	=	+ 2 kg

and "not for retail counter use".

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/9A/5

CHANGE No 1

The following change is made to the description of the Avery Model 3550/ABW Weighing Instrument given in Certificate of Approval No 6/9A/5 dated 29/5/73.

Add to Page 4, Description of Pattern:

"The basework as shown in Figure 1 may be fabricated (rather than cast in iron), in which case it is known as a model 3551/ABW."

Signed

Executive Director

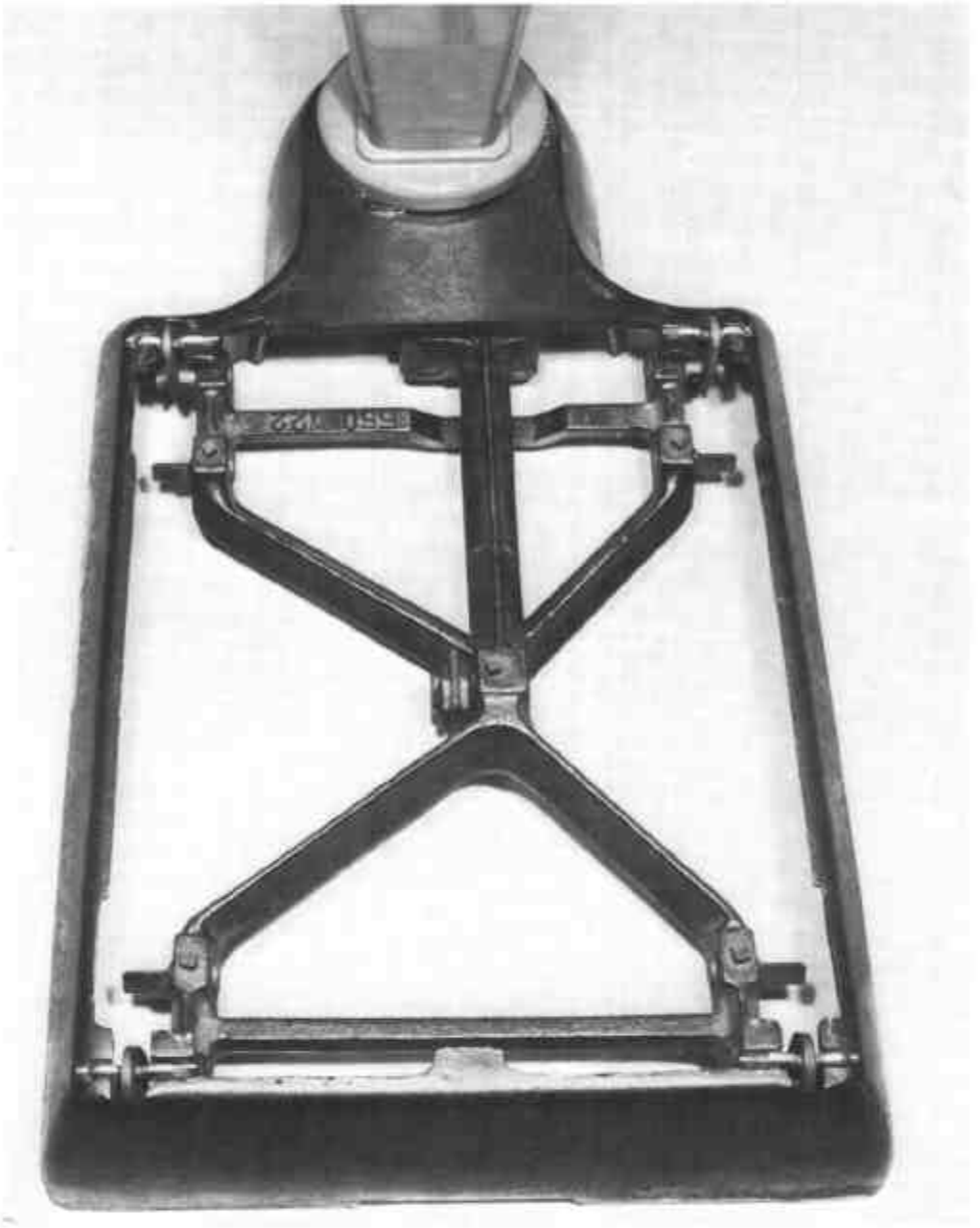
29/9/82

FIGURE 6/9A/5 - 1

Avery Type 3550/ABW Weighing Instrument

29/5/73

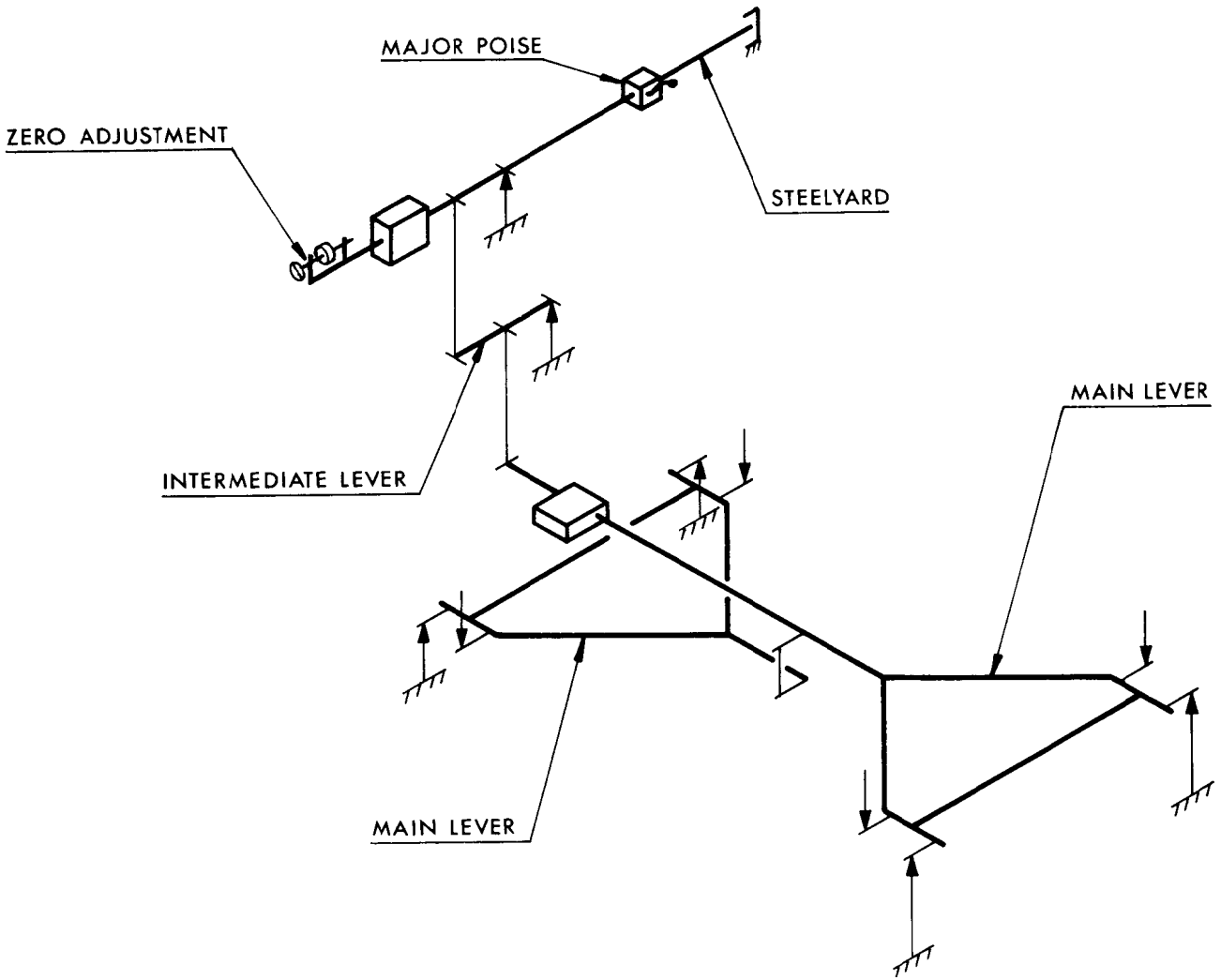
FIGURE 6/9A/5 - 2



Basework Lever System

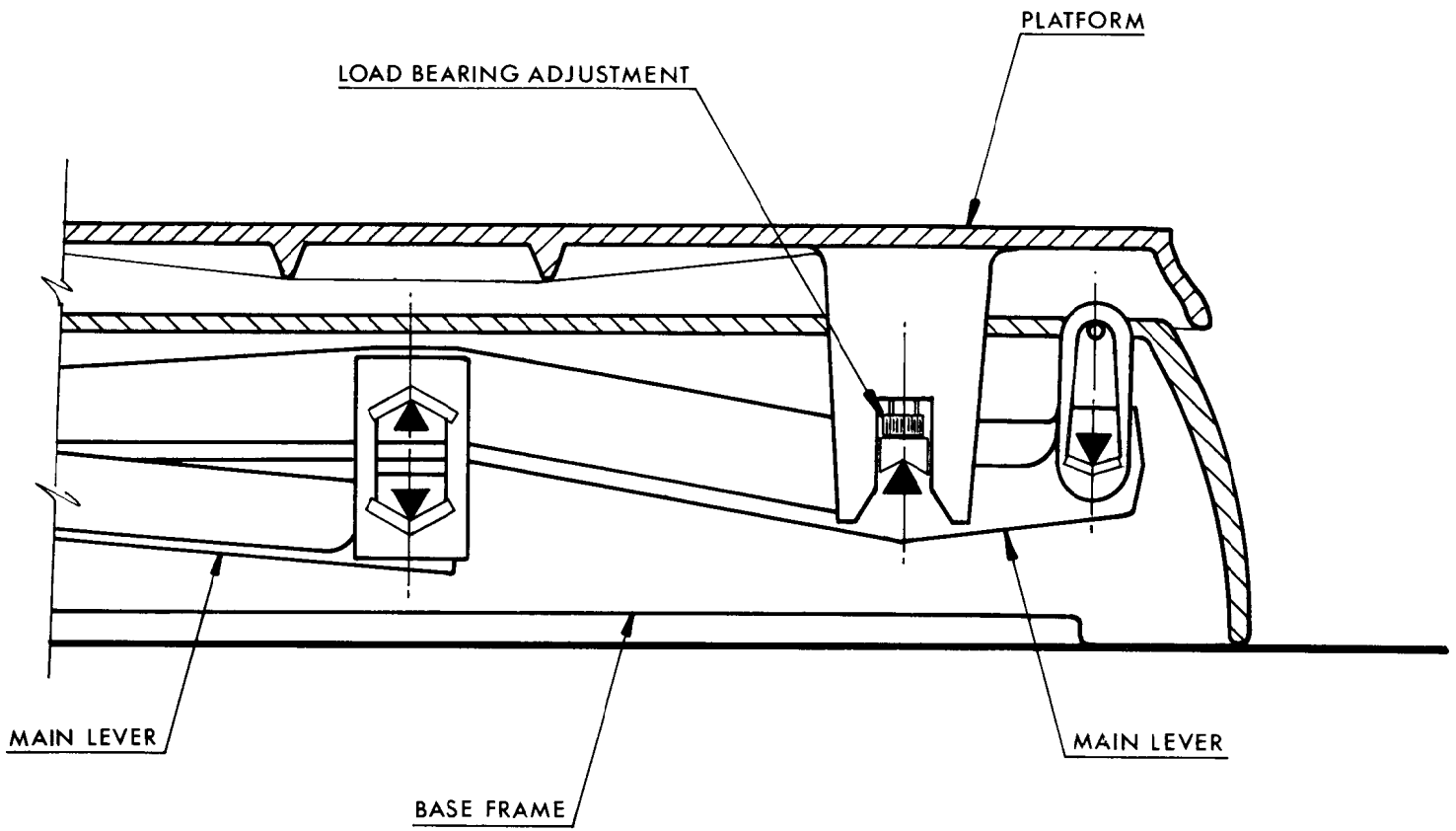
29/5/73

FIGURE 6/9A/5 - 3



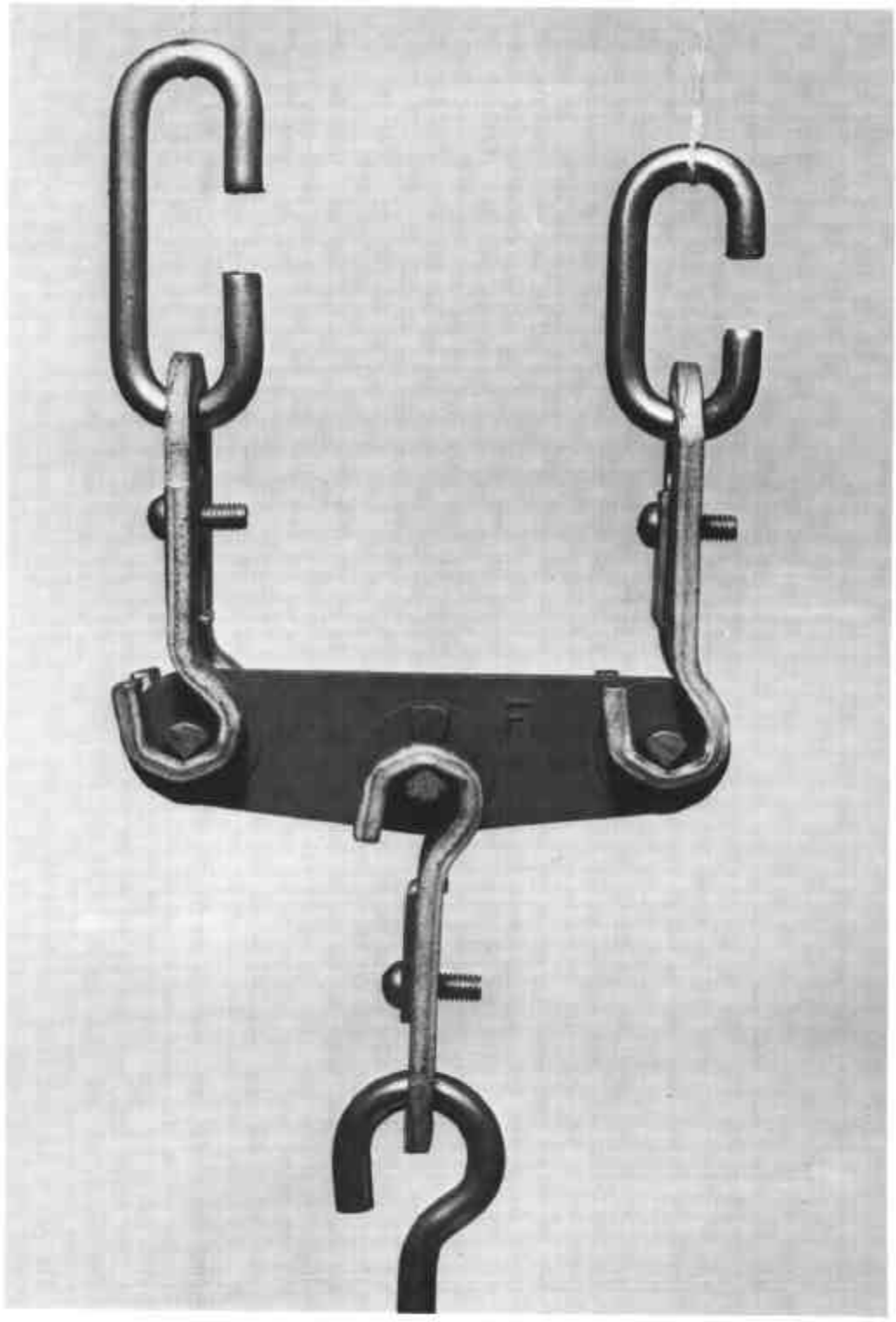
Schematic Diagram — Avery Type 3550/ABW Weighing Instrument

FIGURE 6/9A/5 - 4



Details of Knife-edges and Bearings — Basework Lever System

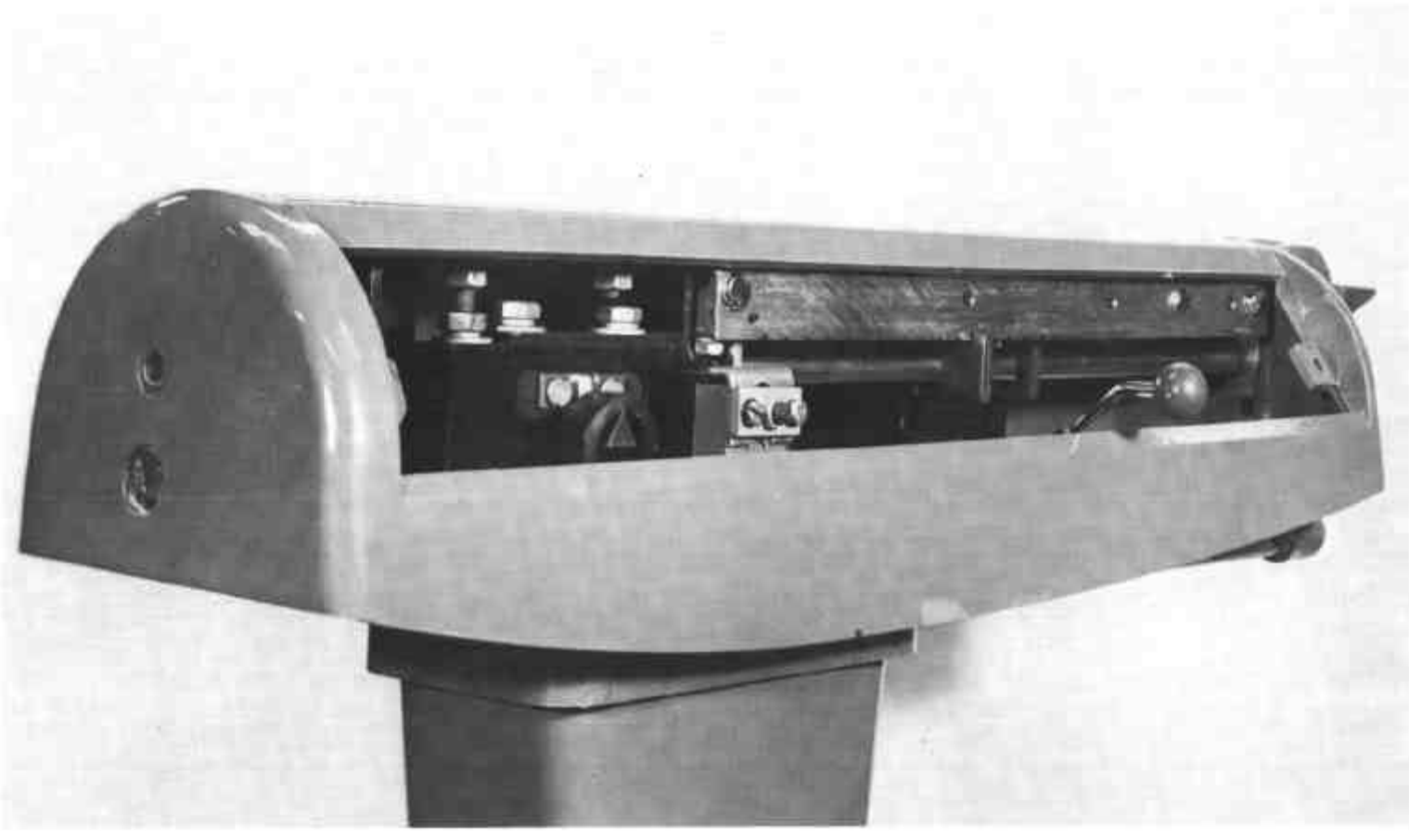
FIGURE 6/9A/5 - 5



Details of Intermediate Lever

29/5/73

FIGURE 6/9A/5 - 6

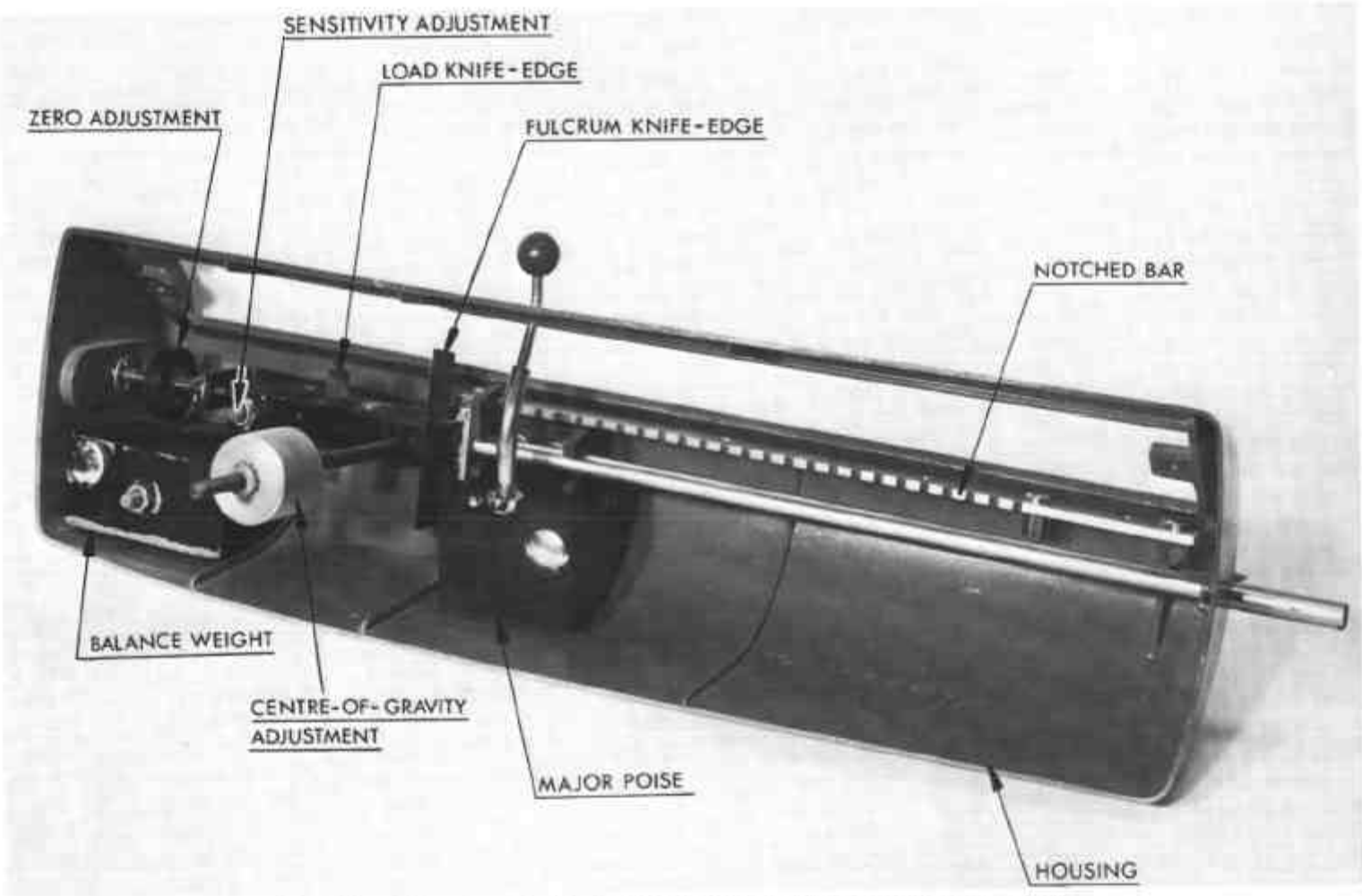


Headwork Housing and Components (scale removed)

FIGURE 6/9A/5 - 7

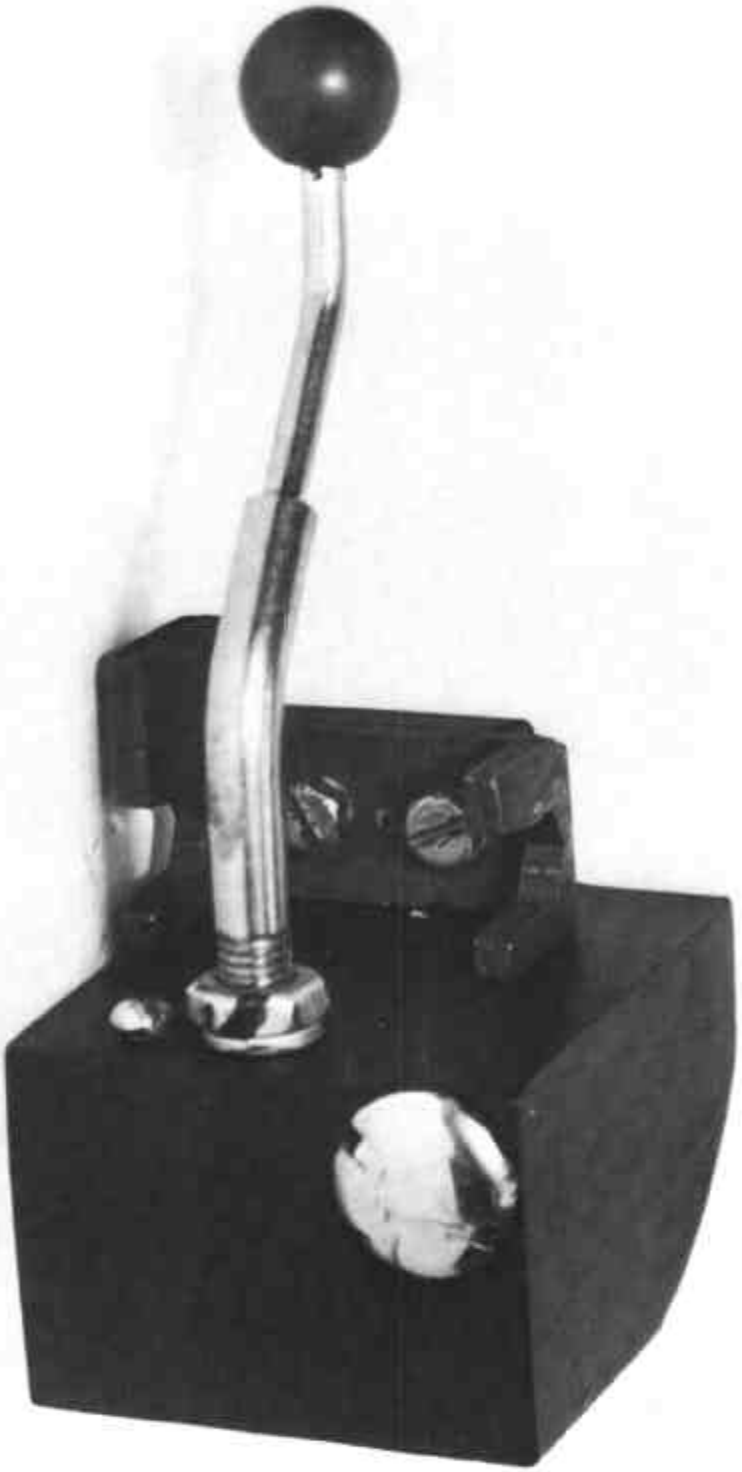
Details of Headwork Components

FIGURE 6/9A/5 - 8



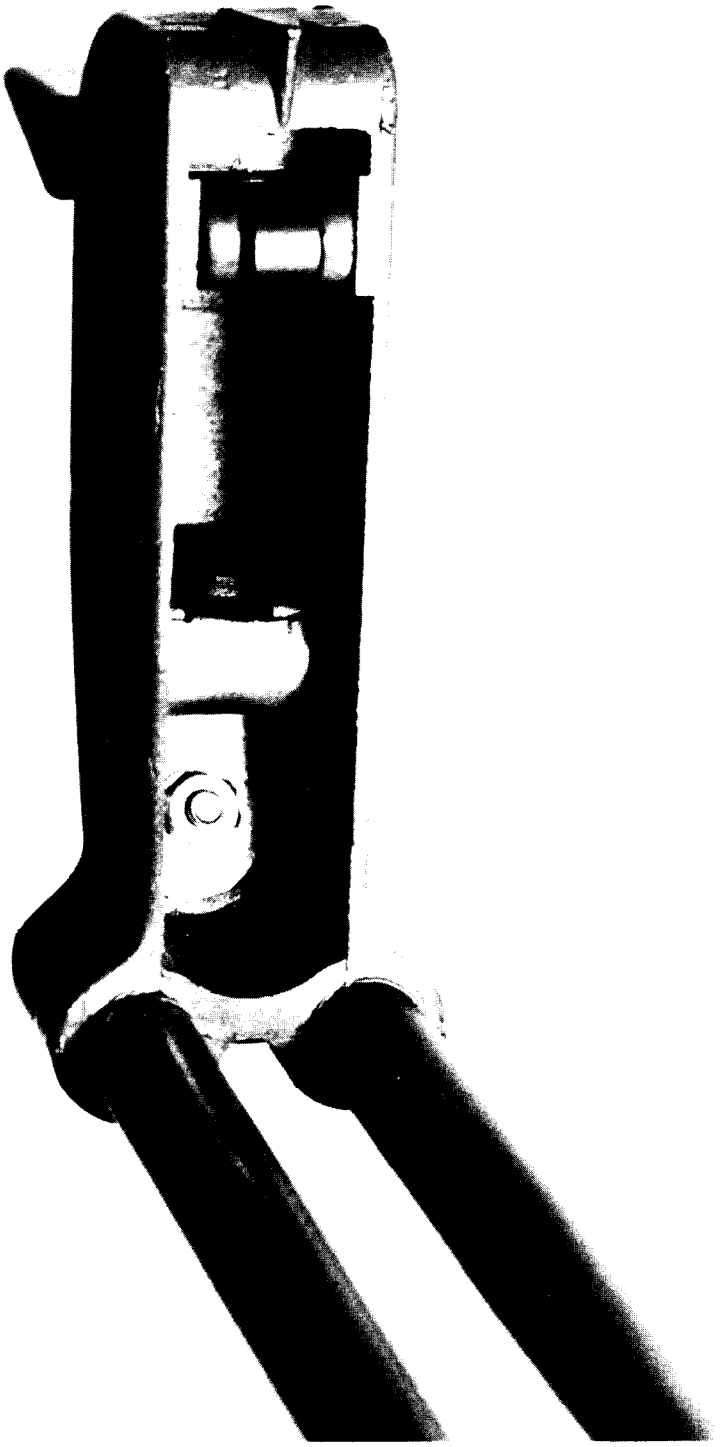
Details of Headwork Components (viewed from below housing)

FIGURE 6/9A/5 - 9



Major Poise with Nib and Saddle Assembly

29/5/73



Steelyard Bottom Stop and Retaining Bracket

29/5/73