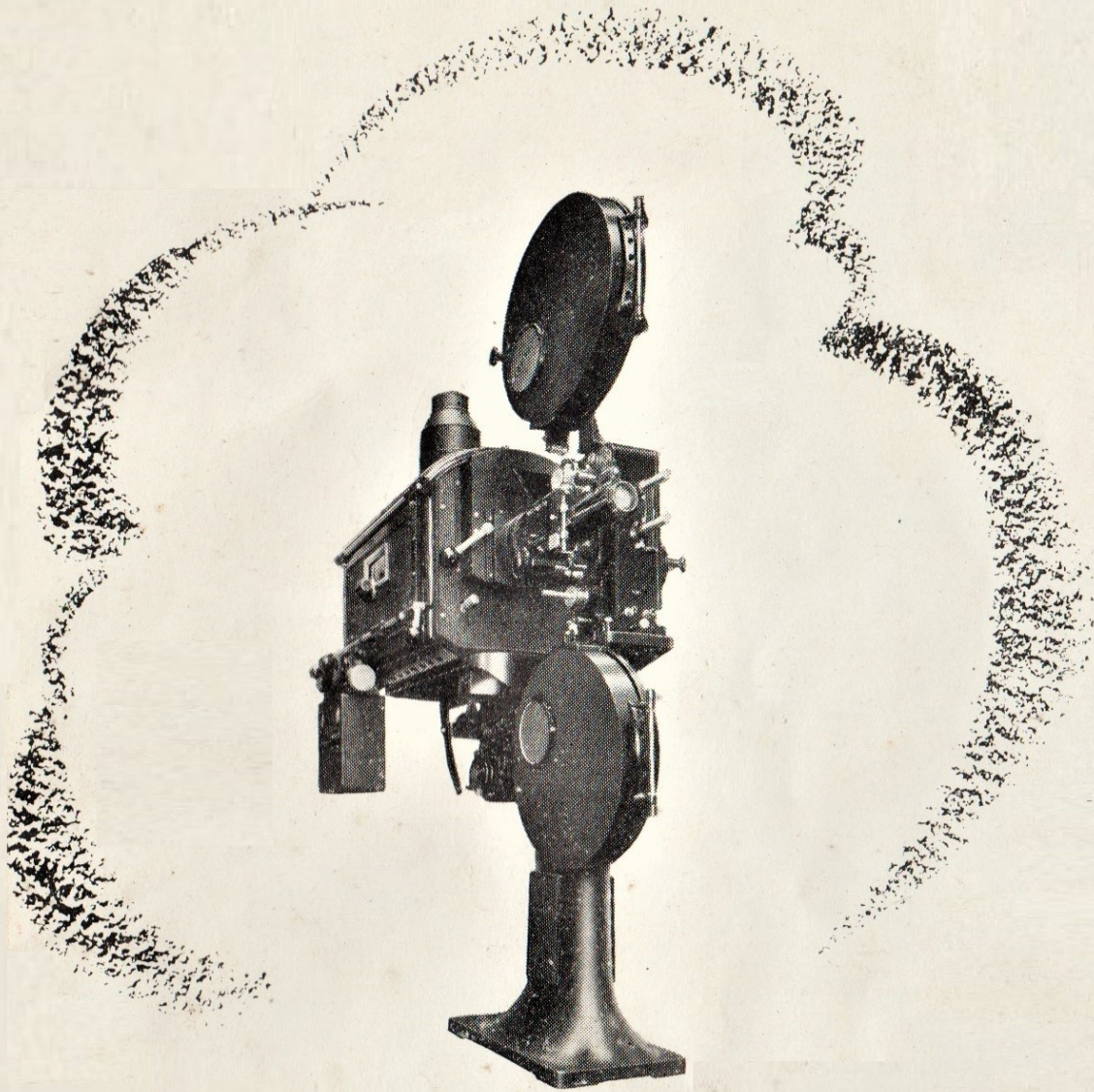


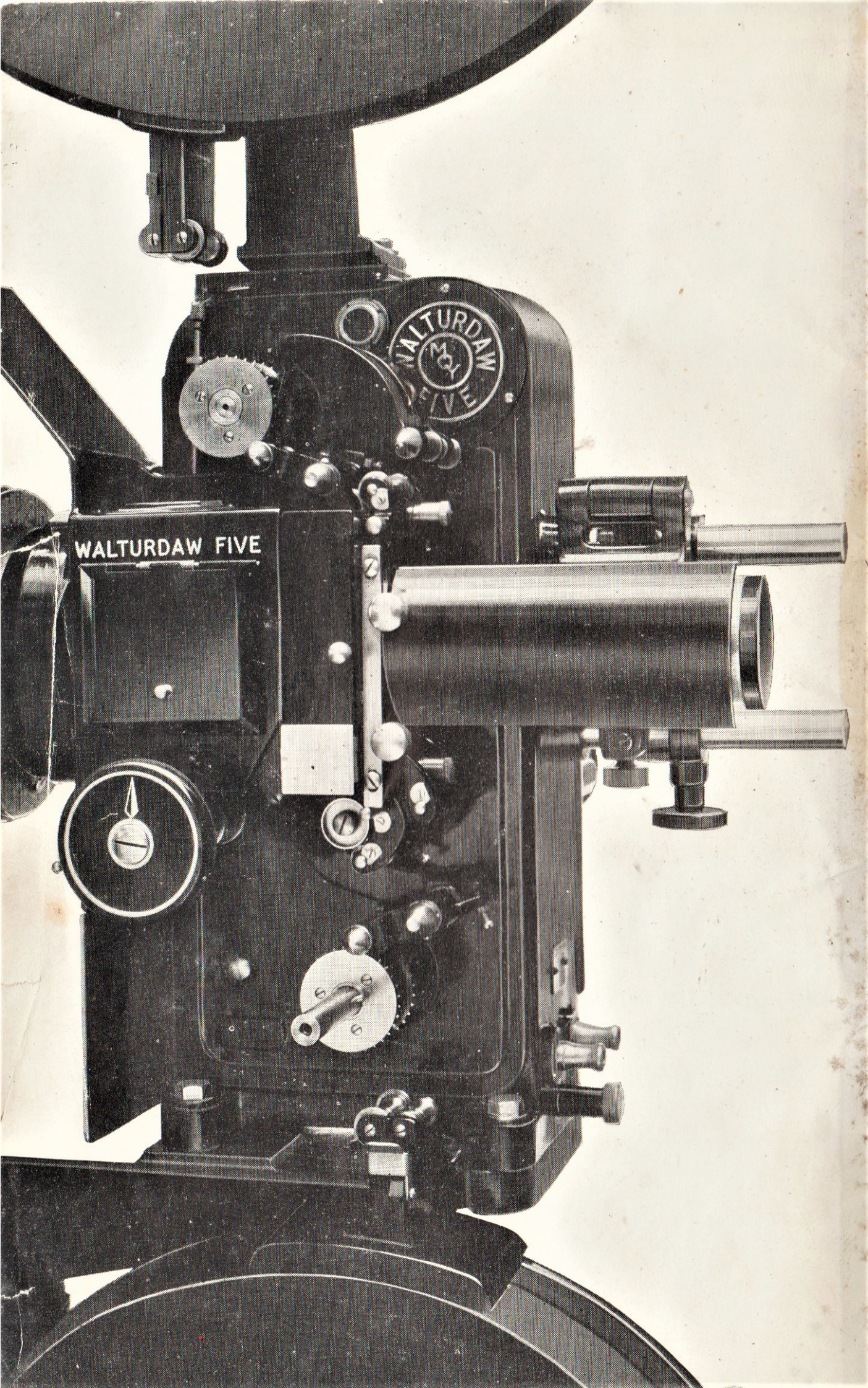
The
incomparable
WALTURDAW
water-cooled
FIVE





“ . . . What impressed me most about the new Walturdaw projector was its extremely practical design and the elaborate precautions which have been taken to ensure perfect presentation and condition of the film in operation . . . ”

—A leading technician.



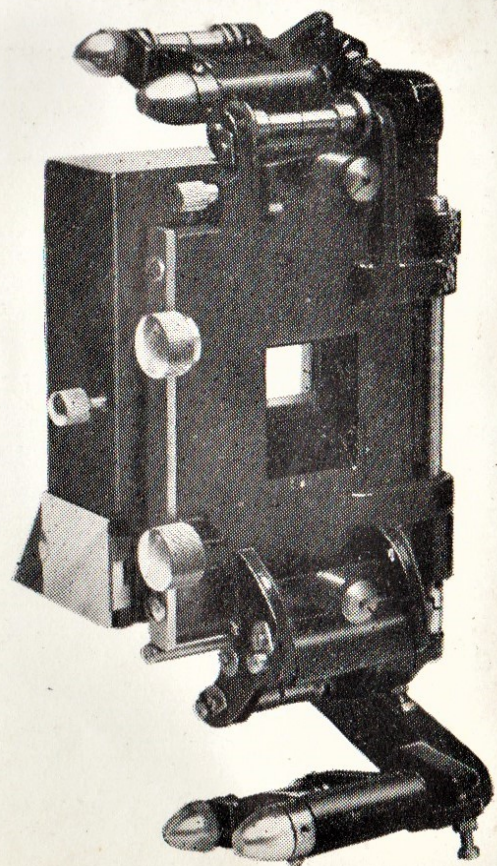
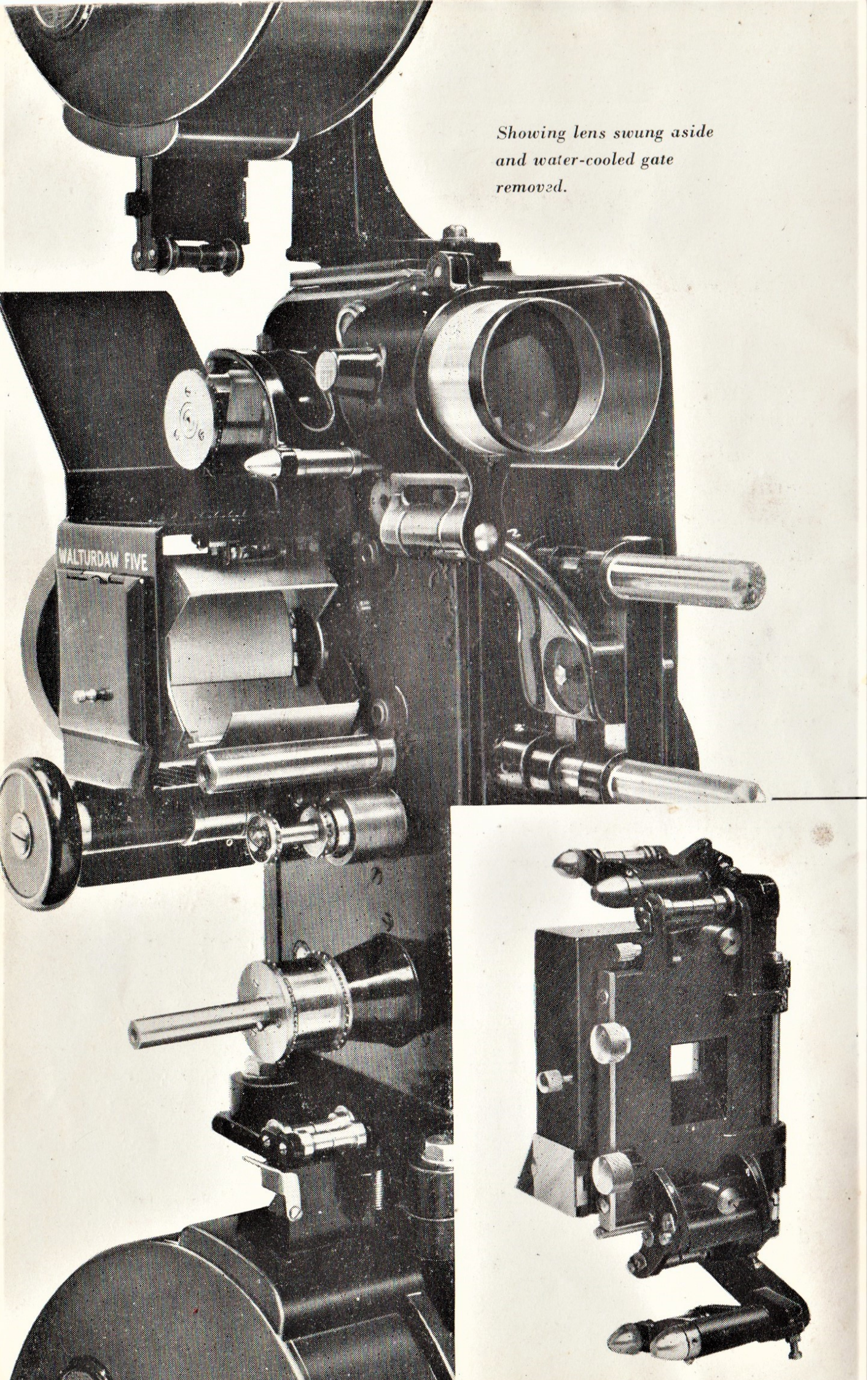


a new departure - - -

The Walturdaw Five marks a new departure in Projector design, bold in conception and with far-reaching effects on film-projection technique.

In planning this first important post-war Projector we have foreseen certain probable developments in the use of illuminants and film which may well render obsolete many pre-war ideas on Projector design. Thus, features of the new Walturdaw model which might have been considered luxuries before, now become the practical essentials of good projection and safe operation.

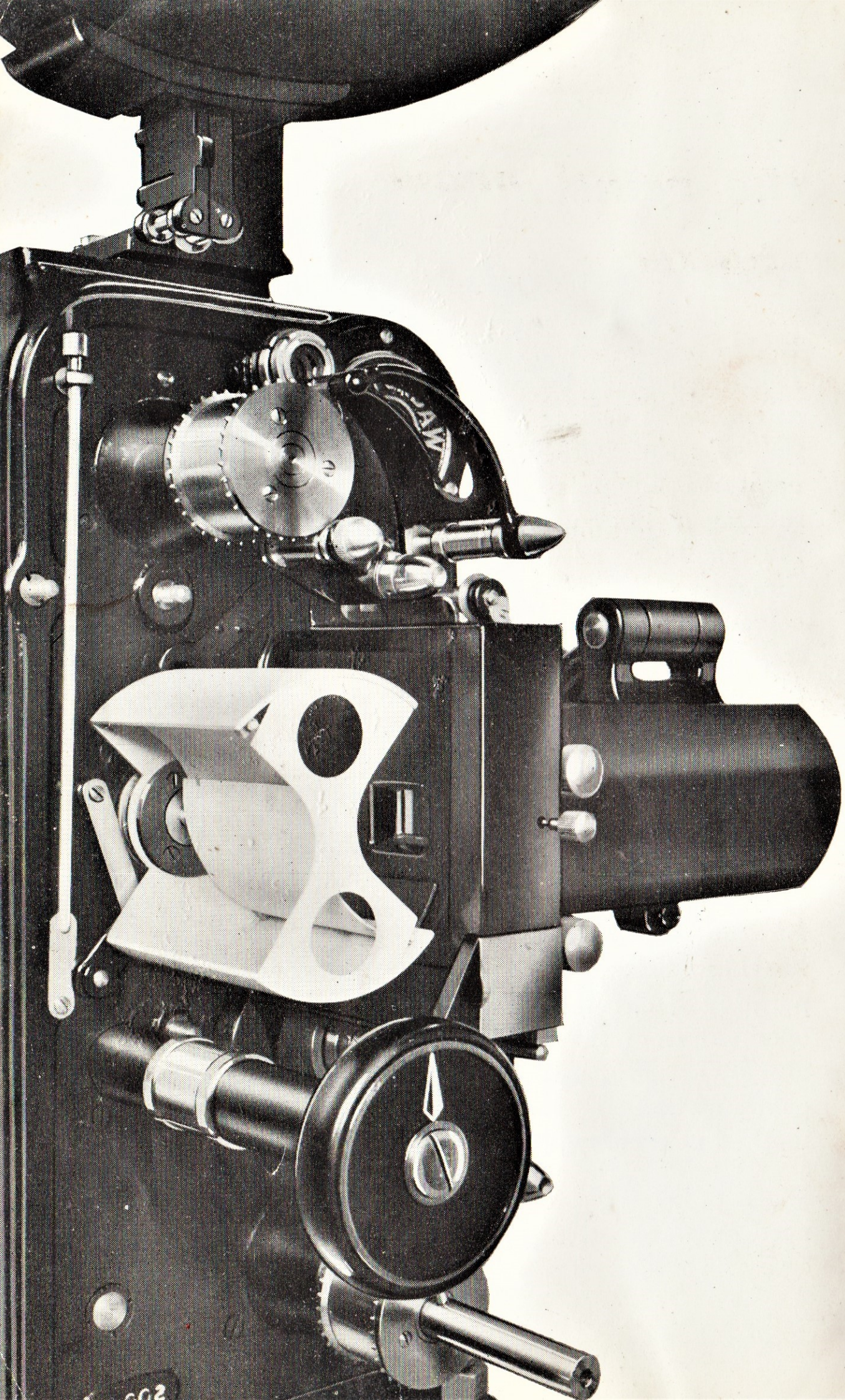
*Showing lens swung aside
and water-cooled gate
removed.*



the removable water-cooled gate

This was actually introduced as a feature of our more expensive Projectors just prior to the war. It is still the only satisfactory method of keeping gate temperatures low enough to ensure absolute smooth running of the film through the gate and obviating the possibility of damage or distortion of the film through overheating. With the increasing number of colour films now being shown and the consequent stepping-up of light intensities, this need for cool running cannot be over emphasised. Alternative methods such as blowing air through the gate, are unsatisfactory since they cool only that part of the film carrying the image. To be 100 per cent. effective any cooling device must reduce the temperature of the mass of metal surrounding the gate, the heat from which is the main cause of damage to sprocket holes and sound track. The gate on the Walturdaw Five has been made to a special concave design incorporating a circulatory water system which can be operated from the main water supply or, if this is absent, a tank or pump may be used. Less than a gallon of water is required in the event of the latter method being employed.

When projecting with Low Intensity Arcs where the need for water-cooling is not so great the supply can easily be turned off at the projector if required.



the metal drum

shutter

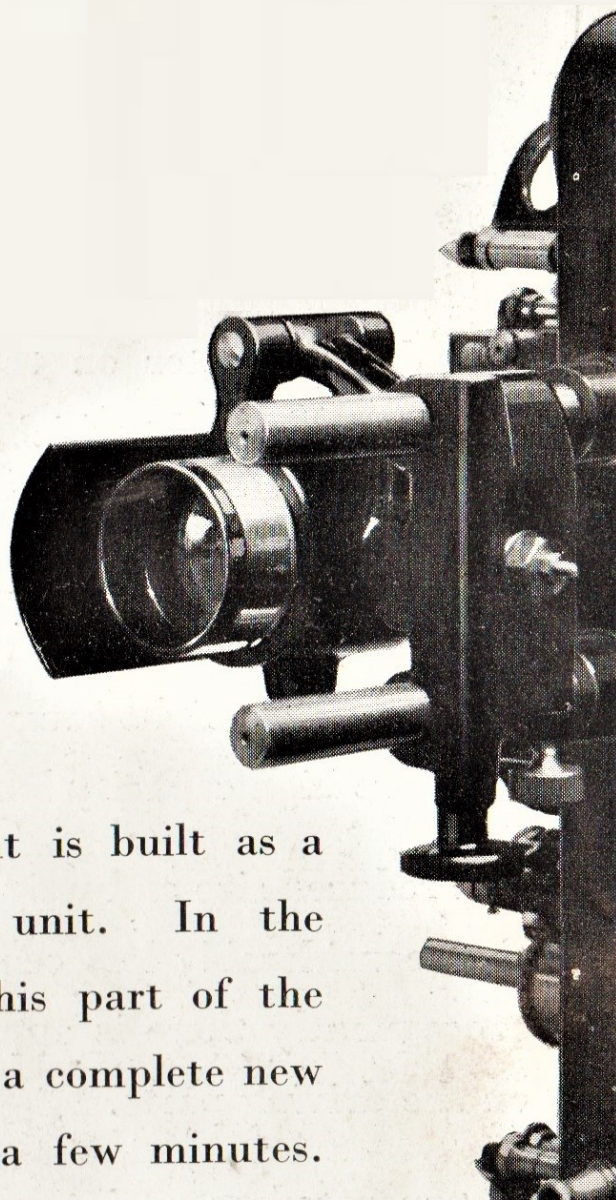
The drum shutter on the Walturdaw Five ensures that all of the light which is produced in the arc lamp is thrown on to the gate aperture. Because of the small size and relative position of the shutter only minimum light obscuration is experienced, particularly when the light source has a large aperture ratio or where high capacity lenses are used.

The reduced size and weight of the shutter also means that considerably less centrifugal force is set up and consequently there is appreciably less wear and tear on the driving parts.

Incorporated as an integral part of the light-shutter is the special fire-shutter which is fully open only when the machine is running at correct speed. Thus the film is fully protected if for any reason the projector loses speed or comes to a standstill.

It will be seen that in the matter of shutter design alone the Walturdaw Five possesses certain optical and mechanical advantages which make for superior results in practice.

***removable
intermittent
movement***



The intermittent movement is built as a complete interchangeable unit. In the event of breakdown in this part of the Projector replacement with a complete new movement is the work of a few minutes. A standby Projector is therefore unnecessary.

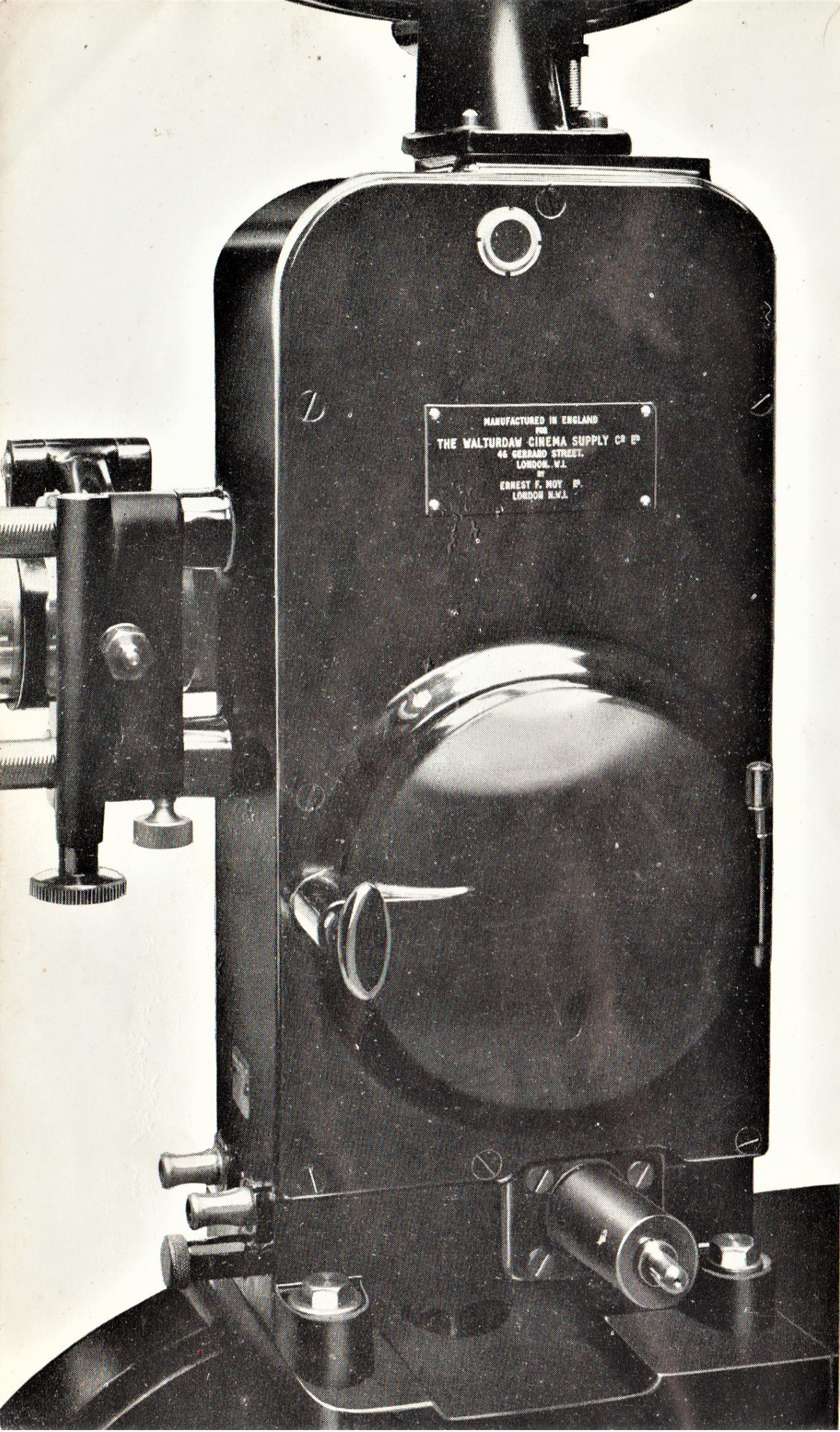
The complete assembly comprises Maltese cross with cam in special oil bath, Maltese shaft with intermittent sprocket and flywheel with shaft.

Walturdaw sprockets are made from special alloy steels and are designed to be reversed should the need arise. This operation is very simple and does not involve removing the movement.



maltese cross

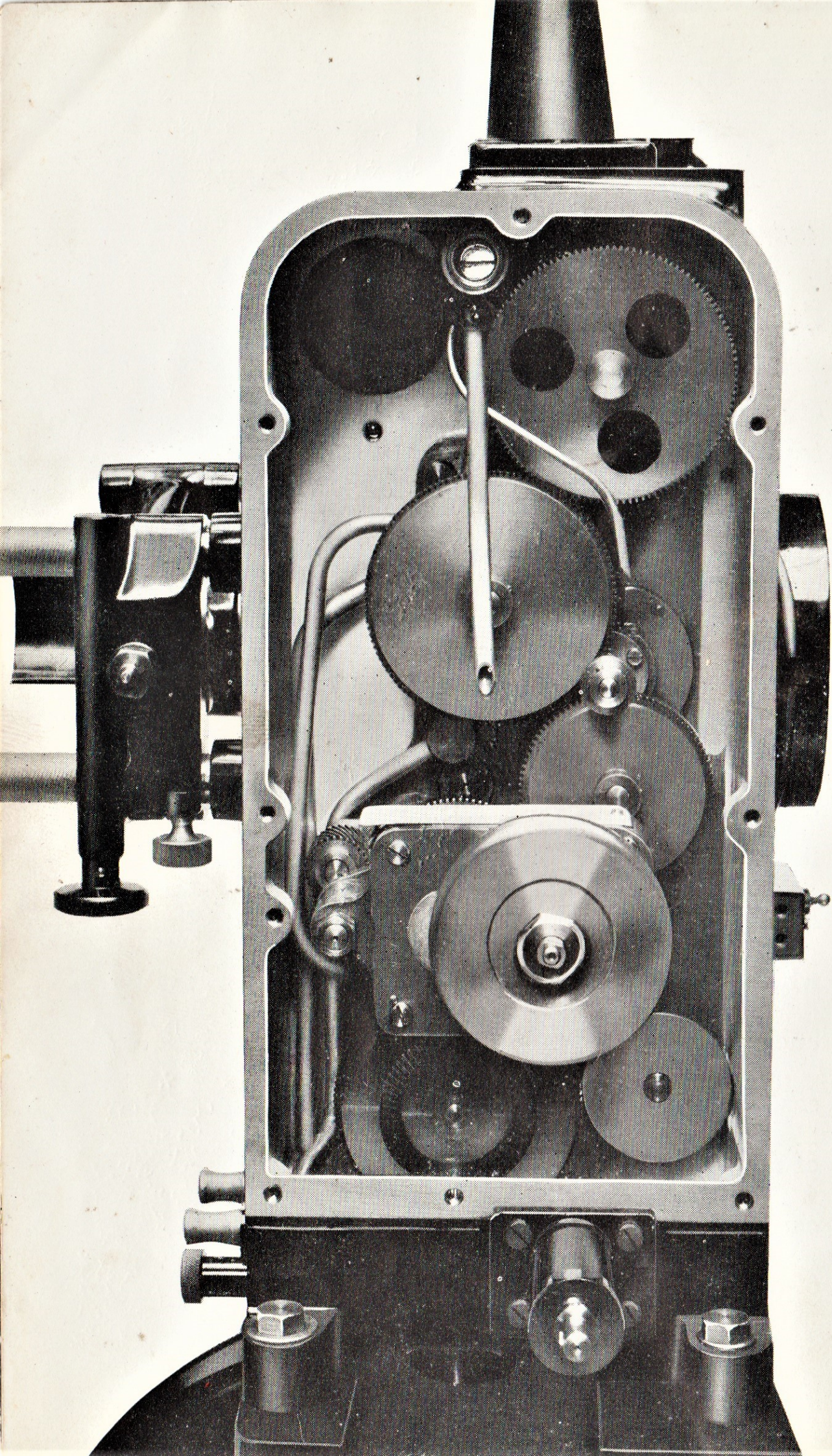
The part of the intermittent movement most subject to wear and tear is the Maltese Cross. During the war we developed for service use an improved design which successfully reduces this wear. The new design has been patented and is now a standard feature of the new Walturdaw Five.



MANUFACTURED IN ENGLAND
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LONDON, W.I.
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ERNEST F. MOY, R.
LONDON, N.W.1.

totally
enclosed
mechanism

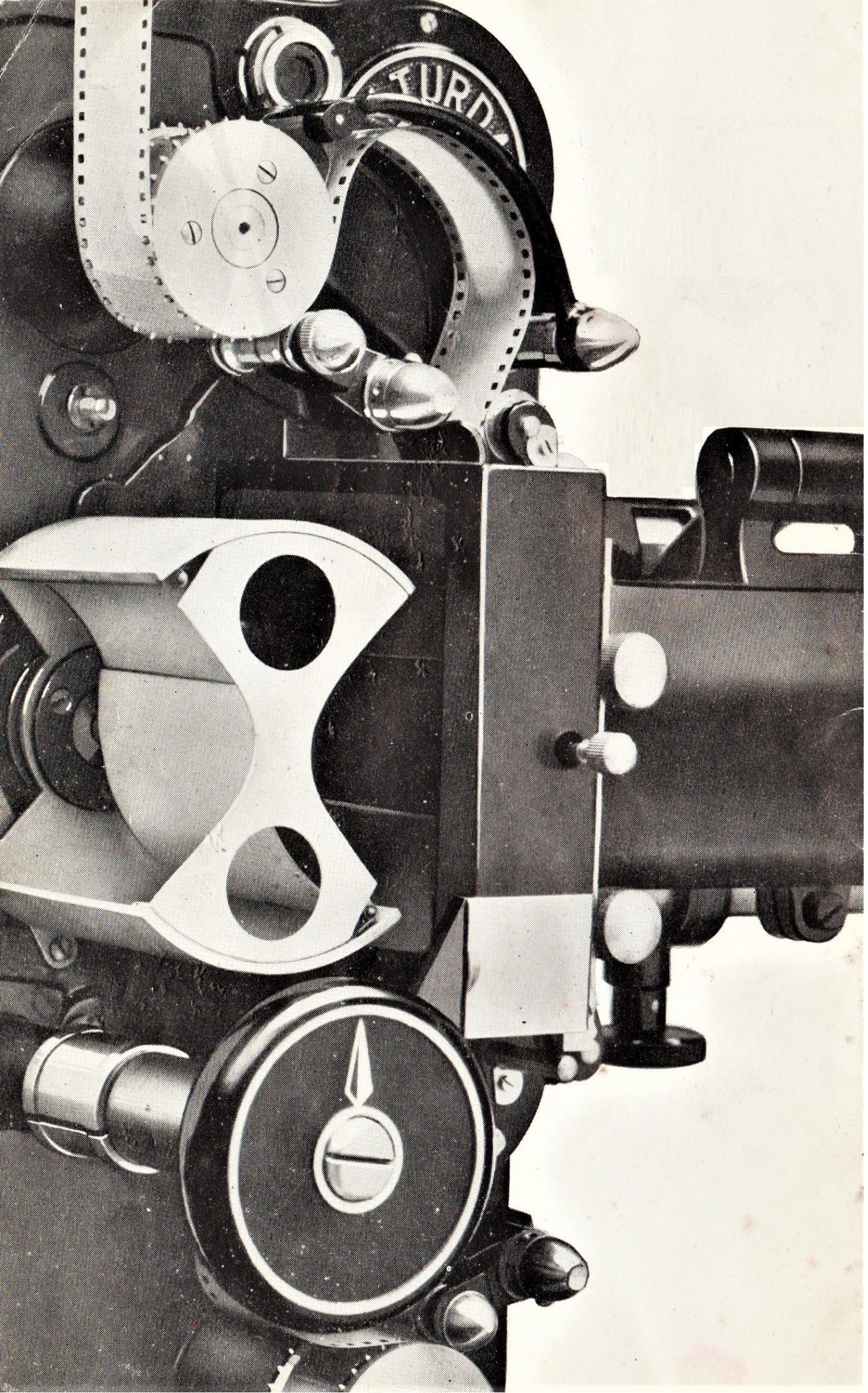
Obviously a Projector mechanism which is easy to dismantle will encourage the operator in keeping it clean. So little bother is involved in removing the gate of the Walturdaw Five for instance that only a few minutes is required each day to keep it spotless. By designing a central picture racking attachment which can be built into the Projector, a totally enclosed housing has been achieved which effectively seals the driving mechanism against the penetration of dust. As well as keeping out the dirt the enclosed casing keeps the oil in, thus making possible the use of a more efficient oiling system.



automatic pressure lubrication

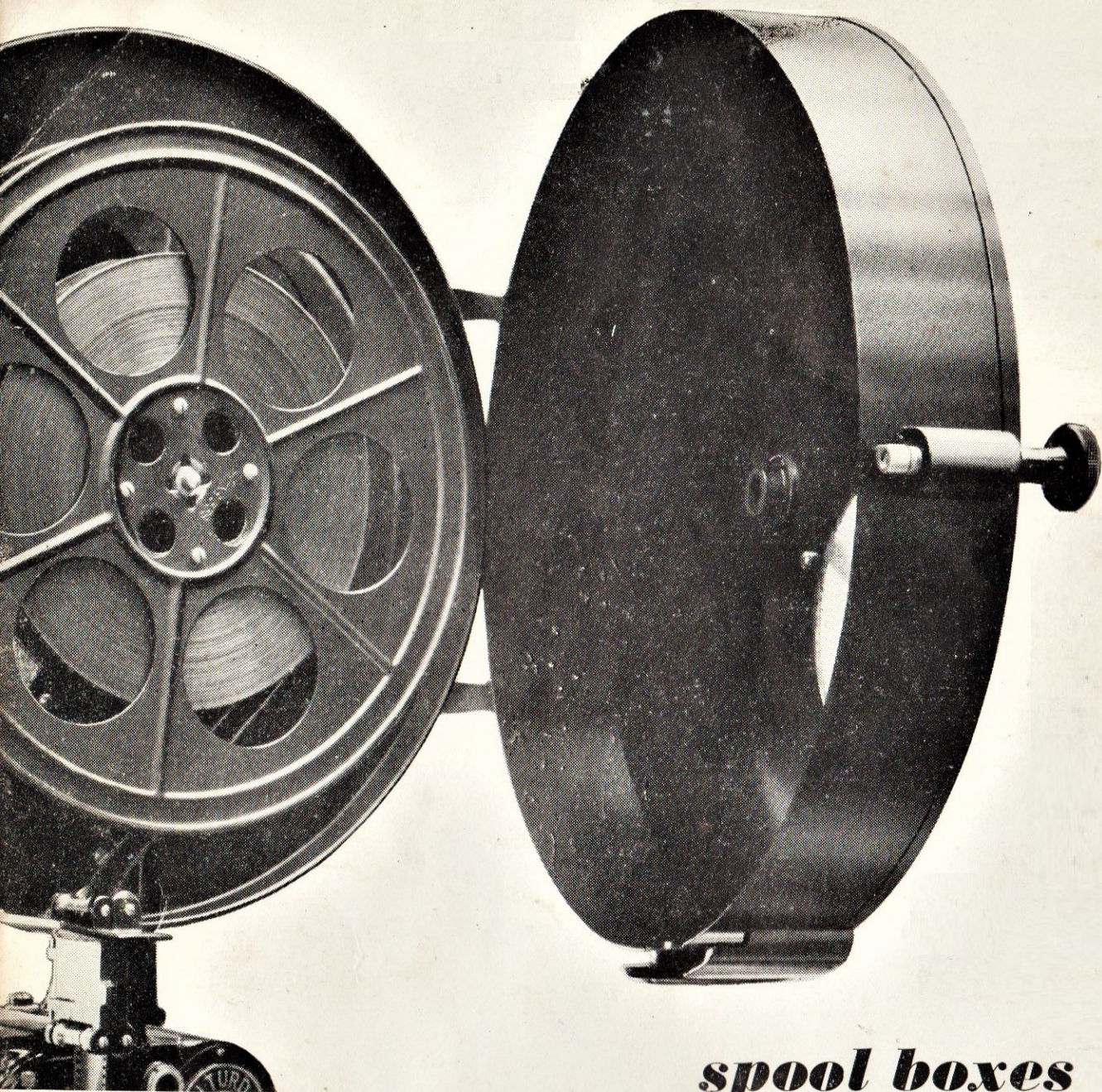
By constant pressure lubrication the oil is forced upwards in the housing and cascades on to all the working parts. During circulation the oil is cooled and cleaned, thus a fresh supply of high capacity lubricant is constantly available. Because the projector casing is absolutely oil-tight there is no leakage or oiling of the film, consequently, too, the quantity of oil used is extremely small. Changing the oil need only be done after long periods of operation.

The intermittent movement runs in a special oil bath fed with clean oil from the automatic lubricating system.



protection from fire

Although the centrifugally operated flaps in the drum shutter (described on page 7) provide for any slowing down or stoppage of the motor, there is still the danger which arises from a film break within the gate. In this case the motor would still be running at its correct speed with the end of the film stationary in the gate. To meet this emergency, use has been made of the fact that the upper film loop will now build-up below the top sprocket. In the Walturdaw this build-up of the film presses on a stirrup just above the top sprocket operating a trip switch which automatically closes the gate aperture between the light and the film.



spool boxes

In the Spool boxes the housing forms the lid which can be swung right back, leaving the rest of the box comprising spoolholder and fire trap firmly connected to the spool box arm. In this way the spools are more accessible, making for speed and easy handling. The top spool box is equipped with a friction winding device which enables the film to run smoothly, and effectively prevents damage to the film, especially at its ends. A matter of great convenience is that the top spool box can be tilted, enabling the projector to be placed close up to the operating box wall if desired.

The top sprocket is the centre around which the spool box is tilted, therefore the film runs perfectly smoothly at any angle.



Having provided you with a Projector designed to give the best possible picture on the screen with the utmost smoothness in operation, we would also welcome the opportunity to assist you in the wise choice of suitable arc lamp equipment and sound apparatus most likely to give you the high standard of projection associated with Walturdaw installations everywhere.

In addition we maintain nation-wide service through our branches for carpets, seating, curtains and every cinema and theatre accessory.

N.B. Pending being able to offer our own Soundheads and realising that the most pressing need of most Exhibitors is for a Projector mechanism we have purposely designed the new "Five" to operate with existing Sound Systems.

WALTURDAW

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