GAUMONT-KALEE "18"

sound and projection equipment

A GAUMONT-KALEE PRODUCT



the GAUMONT-KALEE "18" with UNIVERSAL ARC LAMP

An outstanding and practical addition to the GAUMONT-KALEE

range of PROJECTION AND SOUND EQUIPMENTS

Pollowing the production of the now world-famous Gaumont-Kalee '21' and '20' Projection and Sound equipments, we introduce the Gaumont-Kalee '18'.

Our main object in doing so is to provide a *complete* equipment of the same high standard of reliability and performance as its larger counterparts, but within a price field that is ideal for, and will instantly appeal to, even the smallest theatre.

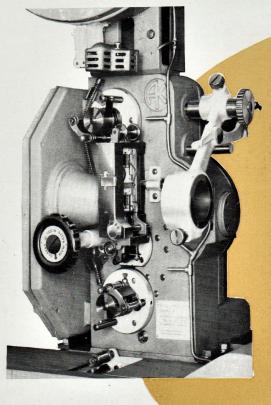
Naturally the Gaumont-Kalee '18' does not possess the same extreme refinements as the '21' and '20,' but it does embody in the highest degree their many advancements in design and manufacture; their great improvements which make for better picture presentation; and all the economies in maintenance which the post-war range of Gaumont-Kalee equipment has given to the industry.

Within its price field and class, we state categorically that no other equipment approaches the Gaumont-Kalee '18' in its appearance, utmost dependability and performance in action. And it is backed by the unequalled resources in scientific ability and manufacturing facilities of the Gaumont-Kalee Organisation, in addition to an incomparable experience in the cinematograph field.

Although the new Gaumont-Kalee '18' is a complete equipment in itself, its major components are interchangeable, not only within the Gaumont-Kalee range, but the projector and/or arc lamp can readily be adapted to any particular type and make of sound system.

Let us convince you by actual demonstration, which we should be very glad to arrange on request.

Unsurpassed for the small theatre



the projector

The projector is fitted with a grouped oiling system with an oiling block at the top of the main frame and all spindles and bearings are lubricated through feed pipes terminating at this communal block. The cross and cam of the intermittent unit run in an oil bath and are housed in an oil-tight box casting.

Framing is carried out by rotating the intermittent unit around the inter-sprocket by means of the knob situated on the operating side and immediately beneath the light cone. A "two-way" clutch is incorporated in this knob which prevents picture "creep." Shutter-timing compensation is automatically obtained by a quadrant and linkage sliding the spiral driving gear on the shutter shaft in synchronisation.

The gear train comprises cast-iron and fibre gears in pairs and all spindles are hardened and ground and run in cast-iron bushes. The driving gear adapting the projector to the soundhead is carried in the bottom of the projector main frame which is mounted to the soundhead by means of a readily-secured adapter plate. A single-fixing gear guard completely encloses the gear train of the projector, whilst additional readily-detachable guards enclose the adapter and soundhead gearing.

The gate is rigidly constructed and fitted with an adjustable tension device operated by a knob on the front edge of the gate block, the rotation of which increases or decreases the spring tension on the film skates. The gate itself opens like a book, the hinge being held in position by a spring-loaded catch. When this is released the gate plate, complete with guide rollers and adjustable shoe for the intermittent sprocket, can easily be removed.

The lens holder accepts standard 2.781 in. diameter Gaumont-Kalee "bloomed" lenses; this diameter being clear to 1 in. of the film, and an adapter is supplied for smaller lenses.

A fire-shutter is fitted between the twin-bladed rear shutter and the gate. The fire shutter is directly linked with a centrifugal governor mechanism mounted on the top intermediate gear.

A 16-tooth hardened and ground intermittent sprocket is fitted and 24-tooth sprockets are mounted on the top and bottom shafts.

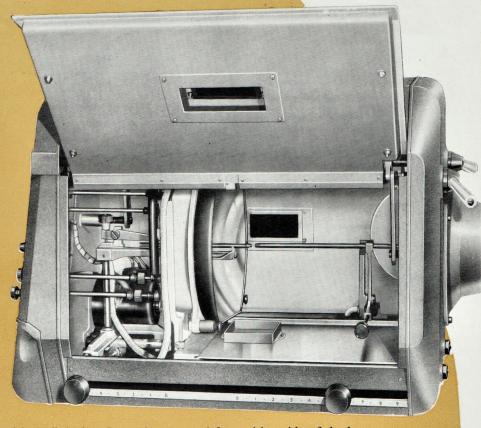
The projector is finished in the standard Gaumont-Kalee colour scheme of mid-stone white, and maroon, with all bright parts heavily plated.

Provision is made for the specially designed 'Pyrene' automatic fire extinguishing equipment as an integral part of the Projector when this optional equipment is ordered.

the UNIVERSAL ARC LAMP

SUITABLE FOR HIGH OR LOW INTENSITY OPERATION, D.C. OR A.C.

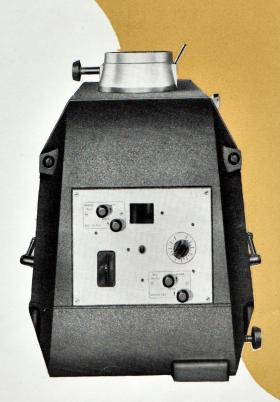
The arc mechanism is totally enclosed by the lamphouse and incorporates a 12-in. diameter elliptical mirror, metal-backed for longer life. Potentiometer and switch for the feed motor, arc inspection window, negative crutch and mirror tilt controls are all conveniently situated on the rear panel, which is readily detachable as a unit for access to wiring and lamp mechanism.



The mirror dowser and light cut-off are positively linked and may be operated from either side of the lamp.

The streamlined lamphouse comprises substantial front and rear castings, secured together by the mechanism guide bars and door pivot rods, with sheet steel formed panels fitting between the castings. Doors open to the full width. The lamphouse is finished in the standard Gaumont-Kalee mid-stone colour.

All internal wiring terminates at a block situated beneath the rear panel, the block being exposed when the cover casting is removed. Wiring on installation can thus readily be carried out.



The removal of the cover casting also exposes the gear train driving the mechanism and the lamp can quickly be converted from H.I. to either L.I. or A.C. burning. This is done by merely interchanging gears in each case.

Control knobs are provided on the operating side for fine adjustment of each carbon at any point of travel without interfering with the automatic drive. These are also available for rapid re-setting of the carbon carriages for a new trim. An external scale shows at a glance the available carbon length.

The carbon holders are of heat-resisting material, of simple screw clamp type and will accept any carbon size within the range being used.

An enlarged image of the arc is projected by a periscope to a convenient viewing position at the base of the chimney.

The arc flame control is the proved energised magnet type and automatically adjusts the magnetic field strength to suit the current rating, thus ensuring correct arc formation with maximum stability.

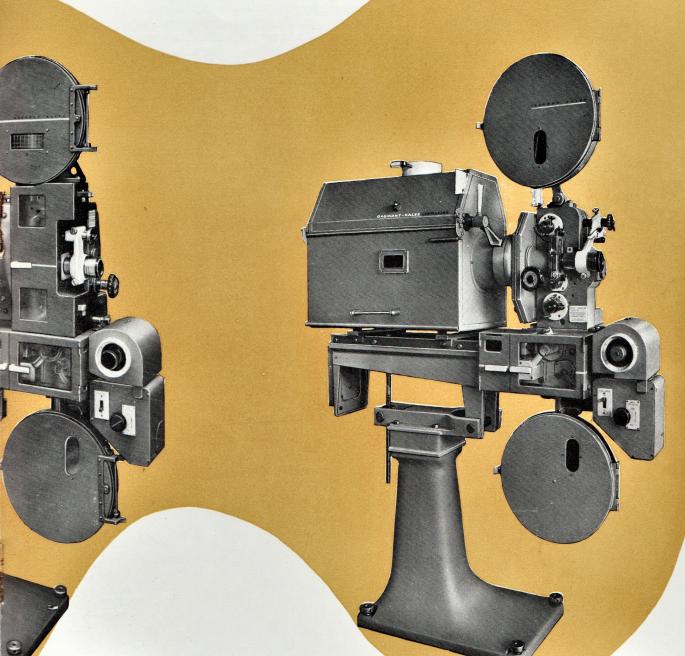
the GAUMONT-KALEE'IS



The GAUMONT-KALEE "18" with the "PRESIDENT" 14 inch mirror ARC LAMP.



with alternative arc lamps



KALEE "18" th sed oil bath MECHANISM

The GAUMONT-KALEE "18"

"COMMANDER" 12 inch mirror ARC LAMP



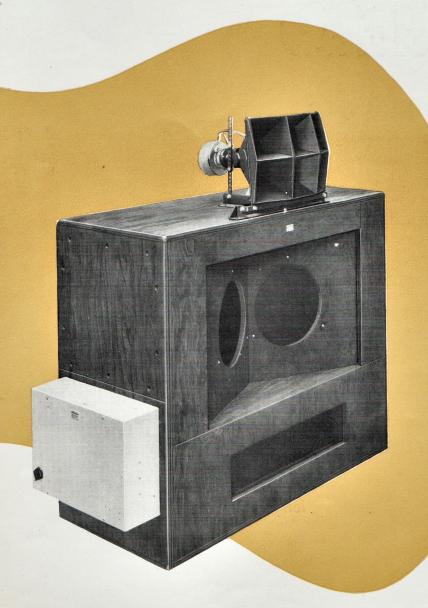
the AMPLIFIER

The Amplifier is an entirely new design, in one self-contained unit comprising the complete amplifier chain—from photocell input to power output for speakers— and the Westinghouse metal rectifier circuit for exciter lamp supply; the main Volume Control; the Sound Changeover Switch; the "film-disc-microphone" Switch; and the Monitor Speaker.

The amplifier circuit has an output stage comprising two 6L6G tubes in push-pull, giving 18 speech watts output with not more than $1\frac{1}{2}$ per cent. total harmonic distortion. Of this 18 watts, a maximum of 3 watts may be absorbed by the monitor speaker, leaving a minimum of 15 watts for the auditorium speaker. The built-in Monitor Speaker has a stud-contact volume control, and there is provision for switching off the auditorium speaker.

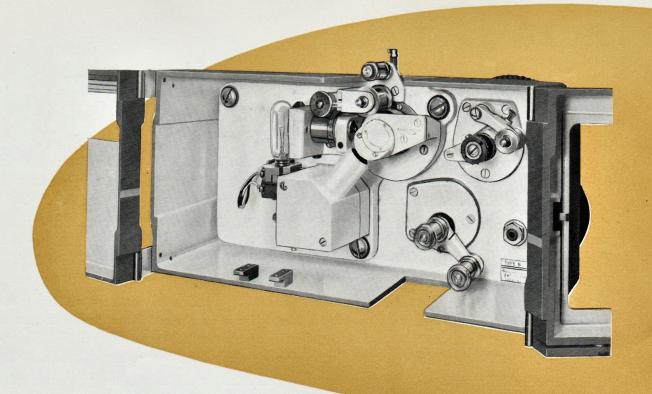
Sound changeover from one machine to the other is effected by switching the exciter lamps. Remote control of the changeover from the operating side of the right-hand machine is by a separate lever, housed in a small steel wall-mounting case, and mechanically coupled to the actuating lever on the amplifier by a flexible push-pull cable. Operation of either the control on the amplifier or of the remote control moves both.

Installation and subsequent maintenance are both greatly facilitated by the design of the steel chassis with its tray and cover. A rigid steel tray, the full height and width of the amplifier but only 3 ins. (7.6 cms.) deep, is permanently fixed to the wall. All external-wiring conduits terminate in the sides of the tray, which carries terminals for the wiring.



THE DUOSONIC LOUD SPEAKER

The Gaumont-Kalee '18' sound equipment is offered with two sizes of 'Duosonic' speaker. For Cinemas up to 750 seats, No. 0 is used. For Cinemas up to 1,000 seats, No. 1 is used. In both sizes of speaker assembly, the speaker units, both treble and bass, are of the permanent-magnet type. These two speaker systems give the utmost fidelity in reproduction. They utilise all-metal multi-cellular treble horns driven by units having all-metal diaphragms, thereby ensuring even distribution of sound over the entire auditorium. The bass horns are of the direct flare type with no rear emanation.



the SOUNDHEAD

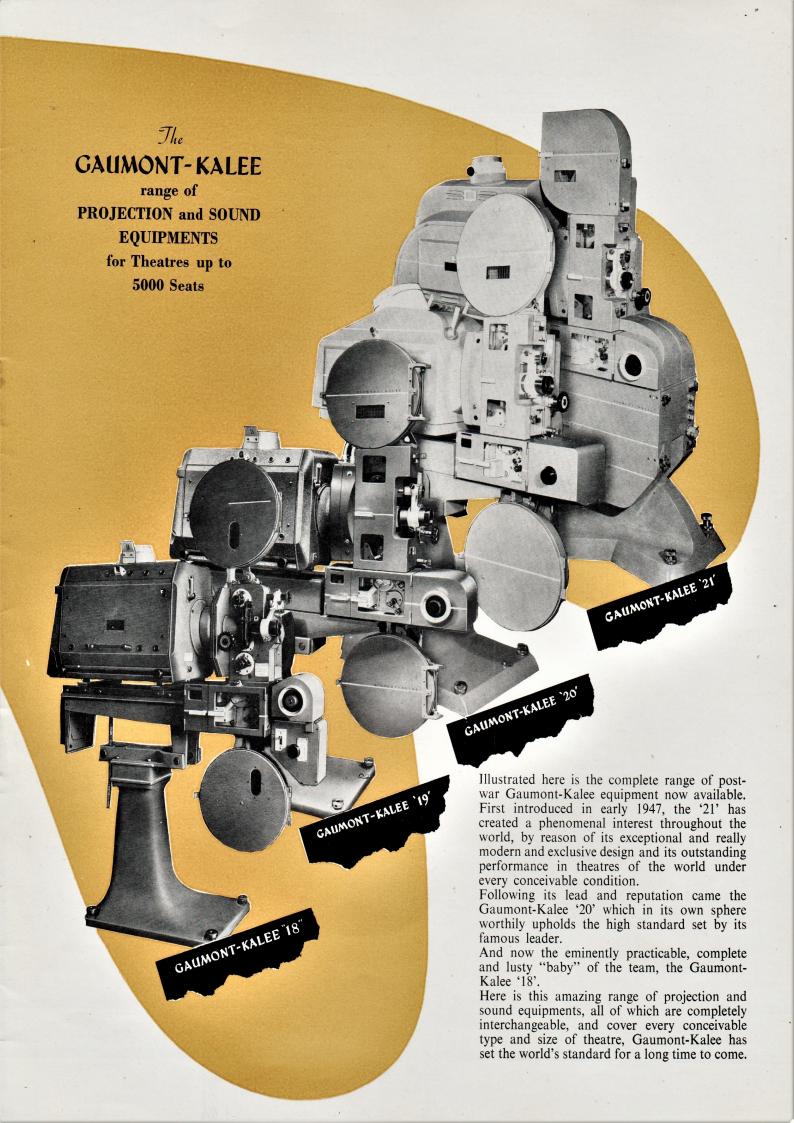
The Gaumont-Kalee Type 543 Soundhead used with this new model employs drum scanning with fluid fly-wheel stabilizer; the scanning unit is shock-absorber mounted. Micrometer adjustment of film guide roller is provided.

The film sprocket is isolated from disturbances originating from the bottom take up, or from a bent bottom spool, by a cushioning roller mounted on a spring loaded jockey arm.

The optical system is of the front scanning or projected slit type, and the exciter lamp is of the standard 8-volt 4-amp. type. The exciter lamp holder has a quick acting height adjustment to cope with variations in individual exciter lamps.

Belt drive is employed between motor and soundhead, also for the take-up and motors can be supplied for operation from 40, 50 or 60 cycle supplies, in the range 95-130 volts, or 190-260 volts. Mechanical assemblies are standardised in interchangeable units, thus avoiding the necessity for part fitting, and providing simplicity in maintenance.

The Soundhead is finished internally in mid-stone: internal assemblies are finished in hard porcelain white enamel, which faciliate inspection and afford greater cleanliness.



The GAUMONT-KALEE "18" STAND

The stand incorporates a heavy cast-iron base fitted with levelling screws, on which is mounted an aluminium casting carrying a pivoted nose bracket for the soundhead and rails supporting the arc lamp, giving a level optical centre height of 46\u00e5 ins. If required the height may be increased to 52 ins. by the insertion of special packing pieces. A motor control box is mounted underneath the driving motor which includes resistance, starter and control switch. An arc control box including ballast switches and meters is available for mounting on the lamp rails but is only supplied if specifically ordered.

'Pyrene' fire extinguisher switches are fitted when this optional equipment is specified.

"PYRENE" FIRE EXTINGUISHER EQUIPMENT

This is an optional accessory at an extra charge which is built into the equipment when specifically required. It comprises a CO_2 cylinder, striker mechanism and automatic cut-off switches for the motor and arc lamp. In the event of a fire occurring in any part of the film track, it has been proved by exhaustive tests that this extinguisher equipment will put out the fire instantaneously. The insertion of a fresh CO_2 cylinder and the resetting of the striker mechanism can be completed in a matter of seconds, with the result that the performance can proceed almost immediately on the same machine, without the audience being aware that a fire has taken place.



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