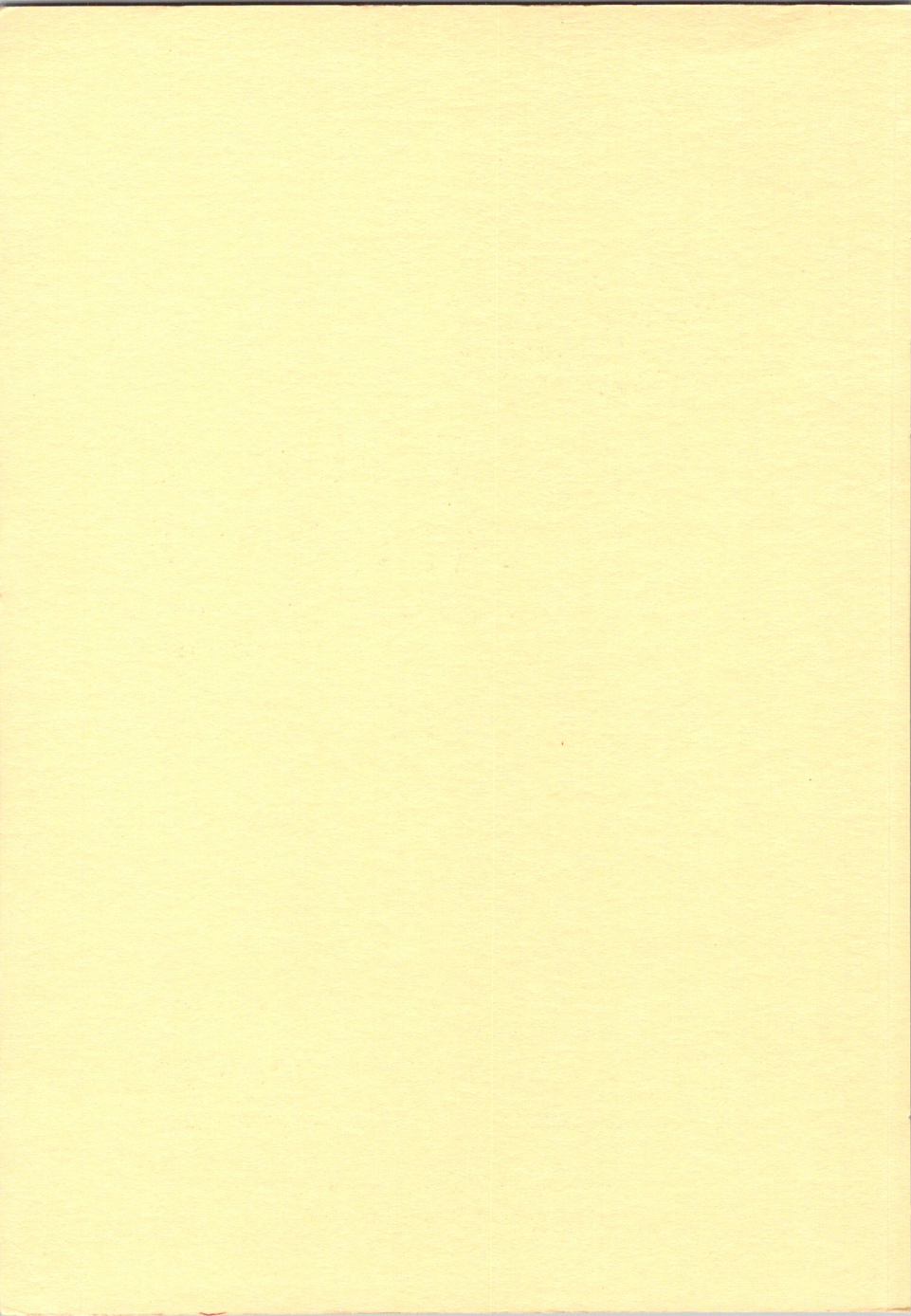




**GENERAL
CATALOGUE**

FOR 1933

ERNST LEITZ WETZLAR AND LONDON



Leica

GENERAL
CATALOGUE

FOR 1933

ERNST LEITZ
WETZLAR AND LONDON

Reprint by Hove Camera Foto-Books,
34 Church Road, Hove, Sussex, U.K.

Terms of business

In order to avoid the possibility of errors, kindly use the descriptions and codewords indicated in this catalogue when ordering.

In the case of apparatus which is intended for connection to an electric circuit, the voltage of the supply must always be stated.

The illustrations of apparatus contained in the catalogue are not necessarily binding as regards all details of equipment.

The letters (A) and (H) which appear following certain prices are only of significance for internal purposes within the Leitz organization.

Page 95 of this catalogue contains a **general index of our products** to which we would direct the special attention of our readers. Special catalogues are at any time supplied free of charge to enquirers.

This catalogue supersedes all previous issues.



Preface

In bringing out the present general catalogue of the Leica and its complete series of accessories we have had the desire to place in the hands of Leica enthusiasts a small booklet that will give them a clear and comprehensive review of the manifold appliances available for the Leica process. For this reason greater value has been set on convenience of arrangement than on full description of the individual appliances: yet, despite this, the descriptions given, together with the numerous illustrations, will give sufficient information concerning the outstanding advantages and properties of the apparatus. In cases where this information may not be complete enough, we shall be glad to send special descriptive literature at any time.

The various items of equipment are arranged in the following seven groups:

Leica Models II, III, and Standard . . .	5
Accessory equipment for special purposes	15
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An appendix in the form of an alphabetically arranged index to the codewords used to indicate the various articles greatly facilitates the tracing of a particular code name.

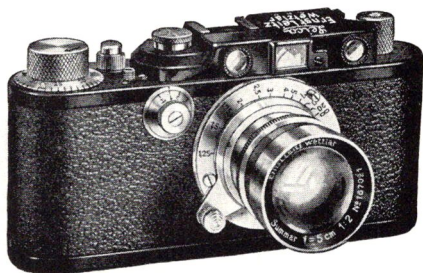




Leica photograph taken during a stage performance with F/1.9 Hektor lens
 $\frac{1}{100}$ th. sec., at full aperture.

Leica

Models II and III



The Leica made its appearance in 1925 as the first **General** miniature camera giving a $1\frac{1}{2} \times 1$ inch image on cinema film. It was the outcome of the many years' experience of the firm of Leitz in the construction of microscopes and other precision instruments: consequently when it made its appearance as a **perfected instrument of precision** it aroused the interest of the whole photographic world. It was destined to bring about a complete revolution in amateur and professional photography and in its unprecedented progress in all parts of the world it became the pioneer and pace-maker in spreading the modern movement of miniature photography. To-day it forms **the basis of a unique photographic process that is extraordinarily universal in its range of application.** The first Leica model with the fixed F/3.5 Standard "Elmar" lens of 5 cm. focal length and with separate range finder developed first into the transitional form with interchangeable special lenses graded in focal length and aperture for all kinds of purposes, and finally, at the beginning of 1932,

into the Model II with automatic focusing. This is now also supplied with focal-plane shutter for slow instantaneous speeds, when it is known as Model III. Thus the "Leica" represents an instrument that has proved itself in years of use and that has undergone development in certain directions as the outcome of long periods of test. Despite this, any of the older patterns of the Leica camera can be converted into the newest model.

Scope of service **Every branch of photography!** There is now no photographic problem that cannot be solved by means of the "Leica" and its practical accessories: portrait photography, sports and landscape pictures, night and theatre subjects, stereoscopic work, photomicrography, close-up studies of small objects in natural size or at small reduction, reproduction photography, clinical or surgical records of operations, X-ray reproductions, etc. The Leica lenses alone can also be used in the making of enlargements and in the projection of pictures. **There is no other camera, small or large, that possesses such an extraordinarily wide range of uses.**

Dimensions The external size of the body of the Leica camera is $5\frac{1}{4} \times 2\frac{1}{4} \times 1\frac{1}{4}$ ins. The standard lens projects only $\frac{1}{2}$ -inch forwards from the camera body.

Weight The "Leica" without film chamber weighs about 17—18 ozs., and the loaded film chamber 2 ozs. It is thus the **smallest and lightest universal camera.**

Camera body Is made out of drawn ductile material of the highest durability, casting methods, which are never entirely reliable, being strictly avoided. Indestructible coating of vulcanised hard rubber. The body is entirely enclosed and fully protects all internal

parts, even in the open position, against damage and against external influences. The edges are rounded.

Perforated standard-size cine film, such as is obtainable all over the world: the usual Leica film length is 62 ins. Special Leica films, ready cut to size, are supplied by all film manufacturers. The film is also, however, obtainable in lengths of 25, 50 or 100 ft.

Negative material

The **Leica size of $1\frac{1}{2} \times 1$ ins.** (24×36 mm.), which was created by Leitz and used for the first time in the Leica camera. This size is just double the size of the standard cinema film picture $1 \times \frac{3}{4}$ ins.

Image size

A spool chamber contains film for 36 exposures. The film can, however, be inserted in shorter lengths or taken out when required, after any number of pictures have been exposed. The number of pictures taken can be read off at all times on a counting disc.

Number of pictures

Weight of the spool chamber loaded for 36 exposures, only 2 ozs.: height $1\frac{3}{4}$ ins., diameter about 1 inch. Spool chambers may be changed in daylight without complication and with the simplest possible manipulation.

**Spool chamber
Changing spool chambers**

The film movement and the shutter winding mechanism are automatically coupled and are actuated by a single continuous rotation of the winding knob against a fixed stop. Consequently **double exposures are impossible.**

Film movement

Self-capping focal-plane shutter. Instantaneous speeds of 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{20}$, $\frac{1}{30}$, $\frac{1}{40}$, $\frac{1}{60}$, $\frac{1}{100}$, $\frac{1}{200}$ and $\frac{1}{500}$ th. second, as well as time exposures of any desired duration. The Model II does not

Shutter

possess the slow instantaneous speeds up to $\frac{1}{8}$ th. second. Use of the well-known automatic shutter releases is possible. The rubber cloth of the shutter blind is made by a special, new process and is proof against all climatic influences. The blind runs in the direction of the longer side of the image, a fact which is of the greatest importance in the rendering of objects in rapid movement. Further particulars are contained in the detailed Leica booklet.

Lenses The standard lens of the "Leica" is the world-renowned Leitz **F/3.5 "Elmar" anastigmat of focal length 5 cm. (2 ins.)**, an unsymmetrical triplet with a cemented rear lens: this lens was computed specially for the Leica and represents the ideal combination of focal length, aperture, image angle and complete correction together with the greatest possible simplicity of construction. Six further special lenses, affording the widest variation in focal length and aperture, can be used interchangeably with the standard lens (see further under "Special Lenses" on p. 16).

Depth of focus A depth of focus ring is provided to show immediately the depth of focus given with every setting of the lens and any given aperture.

Lens focusing The Leica Models II and III possess automatic focusing, i. e., the focusing of the lens and the measuring of the distance of the object form one single operation, since the two movements are automatically coupled together. **The whole operation of focusing is carried out almost instantly:**

1. Observe the object through the range finder and simultaneously turn the focusing mount of the lens with the left-hand forefinger until

the two images of the object visible in the range finder exactly coincide.

2. A quick glance through the view-finder to ensure the correct placing of the object in the field of view, and
3. the forefinger of the right hand, which is held ready on the press button, releases the shutter.

Both hands are used together in focusing, which gives a complete feeling of safety: the whole thing is done in the simplest, most natural and most rapid fashion. **No other camera is its equal in instant readiness and quickness of use in exposing.**

The range finder is built in horizontally as a fixed part of the camera top: the length of its base is more than sufficient for the small size negative. Too long a base has proved actually less suitable for miniature cameras, because with the long base the two images of the object are not visible simultaneously in the field of view of the finder for all distances — this fact is naturally a hindrance in the use of the range-finder and makes measurement uncertain. A full explanation of this point is contained in the detailed Leica list.

**Range
finder**

An optical direct-vision view-finder, a reversed Galilean telescope. The "Leica" is held at eye-level for exposure, which gives the pictures a surprisingly natural perspective.

**View-
finder**

The complete range of Leica lenses can be seen from the price list on page 16. They are all standardised and at once interchangeable with one another: when this change of lenses is made the coupling of the lens with the built-in range-finder takes place completely automatically without any kind of attention on the part of the user.

**Special
lenses**

Prices:

	Codeword	£	s.	d.
Leica Model II , enamelled black, with focal-plane shutter for instantaneous photographs from $\frac{1}{20}$ to $\frac{1}{500}$ th second and time exposures of any duration, built-in precision range finder, including one spool chamber, without lens	Lykan	15.	3.0	
also Standard "Elmar" lens, F/3.5, 5 cm. focus*), with coupling and interchangeable mount	Elmarkup	6.17.0		
	Lykup	22. 0.0		
Ever-ready case , velvet-lined, with holding screw**)	Esnar	1. 4.0		

Leica Model III , enamelled black, with focal-plane shutter for instantaneous photographs from 1 to $\frac{1}{500}$ th. second and time exposures of any duration, built-in precision range finder with telescope system (magnification $\times 1.5$) and metal eyelets and neck strap with clasps, including one spool chamber, without lens	Lydro	18. 3.0		
also interchangeable Universal Lens "Summar" F/2,5 cm. focus*), in collapsible mount with coupling	Sumuskup	15.10.0		
	Lysum	33.13.0		
Ever-ready case**) for this Leica equipment	Esfus	1. 5.6		

Chromium-plated Leica

Leica Model II as "Lykup", but with all nickel-finished and black enamelled metal parts chromium-plated	Lykupchrom	23. 4.0		
Leica Model III as "Lysum", but with all nickel-finished and black enamelled metal parts chromium-plated	Lysumchrom	34.17.0		

*) The Leica can also naturally be ordered with any other of the Leica lenses.
) The **metal key supplied with each Ever-ready case serves to facilitate the loosening of the holding screw when the case is screwed in place on the tripod.

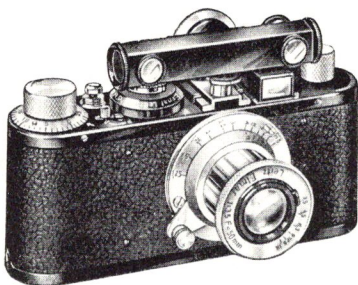
Small extras:	Codeword	£ s. d.
Leica spool chamber model B as spare .	Filca	0. 8.0
Extra centre spool as spare	Spuca	0. 3.0
Take-up spool (receiving spool M) of the Leica as spare	Spulm	0. 3.0
Lens cap (embossed) , also fitting the lens with filter screwed into position	Orift	0. 2.6
For the correction of long-sight or short-sight (not astigmatism) we supply correcting glasses which can be screwed in front of the view-finder and the range finder of the Leica Models II and III (and in front of the view-finder of the Standard Leica)*). When ordering, the exact dioptric number (+ or —) must be stated, each	Ortux	0.10.6
Correcting glasses for astigmatism on enquiry. Adapting metal eyelets including neck strap and clasps		0. 7.6
Interchangeable special lenses see p. 16.		
Further leather cases for the Leica, with and without accessories, see p. 31.		
Yellow filters and supplementary front lenses , see pp. 22—25.		

*) In the case of all cameras, the view-finder and range finder of which are not provided with screw threads, these glasses are supplied at the same price in slip-on mounts. When ordering, it should be specified which type is required.

Leica

“Standard” Model

with attached horizontal
range finder.



LEICA “Standard” Model

The Leica “Standard” Model differs from the Leica Model II only in the fact that the coupling of the range finder and the lens focusing movement is not provided. The range finder, on the contrary, is separate and can be fixed horizontally or vertically on the camera. Apart from this, the “Standard” Leica will do everything that the Leica Model II will do.

Lenses: The “Standard” Leica is principally supplied with the Standard “Elmar” F/3.5 lens of 5 cm. focal length, from which fact the name “Standard” of this model is derived. The lens is, however, also interchangeable with all the special Leica lenses specified on p. 16.

It must be specially emphasised that the “Standard” Leica can be converted into the Model II with automatic focusing at any time.

Prices

Codeword £ s. d.

Standard Leica Camera with one spool
chamber, without lens **Lenot** **8. 3.0**

also

Standard "Elmar" lens, F/3.5, 5 cm.

focus, interchangeable **Elmarkup** **6.17.0**

Lemax **15. 0.0**

Short-base range finder for attachment
in horizontal or vertical position **Fokos** **1. 4.0**

Brown leather case for the range finder **Eukos** **0. 4.6**

Morocco leather purse for the range finder **Eurus** **0. 2.6**

Ever-ready case for the Standard Leica and
other leather cases, see p. 31.

**Correcting glasses for long-sight and
short-sight**, see p. 11.

Small extras as for Leica Models II and III,
see p. 11.



Additional equipment for special purposes

Summary

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Leather carrying cases for the Leica, see page	31

Lenses for the Leica



The complete range of Leica lenses with interchangeable mount and automatic coupling consists of the following:

Elmar, F/3.5, 3.5 cm. focus. Wide-angle lens for architecture and landscape;

Angle 65°; weight 3½ ozs. Codeword **Ekurzkup** £ 8. 3.0
 Chromium-plated finish „ **Ekurzchrom** £ 8. 7.0

Elmar F/3.5, 5 cm. (2 inch) focus. Standard lens and universal lens for all purposes of amateur photography (see also the description of the Leica under the heading "Lenses", on p. 8);

Angle 48°; weight 3¾ ozs. Codeword **Elmarkup** £ 6.17.0
 Chromium-plated finish „ **Elmarchrom** £ 7. 1.0

Hektor F/2.5, 5 cm. (2 inch) focus. Universal lens of specially large aperture;

Angle 48°; weight 4¾ ozs. Codeword **Hektorkup** £ 11. 0.0
 Chromium-plated finish „ **Hektochrom** £ 11. 4.0

Summar F/2, 5 cm. (2 inch) focus. Ultra-rapid universal lens, for all branches of amateur photography and exposures by artificial light. **Non-collapsible** focusing mount;

Angle 48°; weight 6½ ozs. Codeword **Sumarkup** £ 13. 0.0
 Chromium-plated finish „ **Sumarchrom** £ 13. 4.0

Collapsible mount: Codeword **Sumuskup** £ 15.10.0
 Chromium-plated finish „ **Sumuschrom** £ 15. 14.0

Hektor F/1.9, 7.3 cm. (3 inch.) focus. At full aperture a special lens for portraits, sports and press photography, forensic photography, night pictures and theatre subjects; at smaller apertures an excellent landscape lens, capable of universal use*). Focusing mount with rectilinear motion, therefore equally suitable for colour photography by the Agfacolor process;

Angle 34°; weight 16 ozs.; relative magnification as compared with the standard lens, 1.5 times Codeword **Hegrakup**)** £ 26. 0.0
Chromium-plated instead of nickel finish ,, **Hegrachrom**)** £ 26. 2.0

Elmar F/4, 9 cm. focus. Long-focus large-aperture lens for all purposes of long-distance photography, notably landscape, architecture, portraits and animal studies;

Angle 27°; weight 12 ozs.; relative magnification as compared with the standard lens, 1.8 times Codeword **Elangkup** £ 10.12.0
Chromium-plated instead of nickel finish ,, **Elangchrom** £ 10.14.0

Elmar F/6.3, 10.5 cm. focus. Long-focus lens for landscape photography: a specially light and convenient lens for touring and mountaineering;

Angle 24°; weight 7 1/4 ozs.; relative magnification as compared with the standard lens, 2.1 times Codeword **Elzenkup**)** £ 9. 2.0
Chromium-plated instead of nickel finish ,, **Elzenchrom**)** £ 9. 4.0

Elmar F/4.5, 13.5 cm. focus. For objects at specially great distances, serves principally for distant landscapes, but also for portraits;

Angle 19°; weight 14 3/4 ozs.; relative magnification as compared with the standard lens, 2.7 times Codeword **Efernkup** £ 13.12.0
Chromium plated instead of nickel finish ,, **Eiernchrom** £ 13.14.0

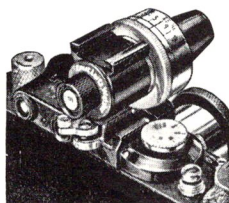
Hektor F/4.5, 13.5 cm. focus. This lens has the same range of application as the "Elmar" lens F/4.5, 13.5 cm. focus. It affords, however, a still greater definition and should therefore always be used when it is required to distinguish extremely fine details.

Angle 19°; weight 20 ozs.; relative magnification as compared with the standard lens, 2.7 times Codeword **Hefarkup** £ 16.10.0
Chromium-plated instead of nickel finish ,, **Hefarchrom** £ 16.12.0

* See also Leitz-Mitteilung No. 53: "Das Wesen der Hektor-Konstruktionen, speziell des Hektor 7.3 cm 1:1.9" (Introduction by Professor M. Berek).

** Including special lens hood.

To indicate the field of view covered by the different lenses, a special view-finder—the so-called Universal View-finder—is required: this is supplied in two models:



Large Universal Finder "Vidom"

for all Leica lenses*).

This view-finder has its angle of view set by a rectangular aperture, which can be varied in size by turning a

milled ring. This ring carries an engraved scale marked with the focal lengths of the various lenses. The aperture consequently always shows the exact field of view for the focal length to which the index mark is adjusted.

The reduced field obtained when taking close-ups is indicated by a second shorter index line.

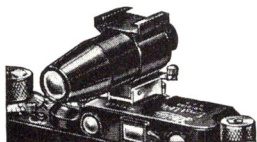
The parallax between view-finder and lens (displacement of the optical axis) can be compensated by tilting the base of the view-finder. This is done by turning a small lever underneath the eyepiece. The actual position of the lever for the various distances under 4 metres (12 ft.) as well as for ∞ (infinity) is indicated on a scale.

A fuller description is contained in the leaflet: "Special View-Finders for the Leica camera".

Large Universal Finder with adjustable field diaphragm and parallax compensation for all Leica lenses	Codeword	<i>£ s. d.</i>
	Vidom	3.18.6
The same, but chromium-plated	Vidomchrom	4. 1.0
Solid leather case for same	Vilui**)	0. 4.0

*) Can be supplied also in a similar form for cine-cameras.

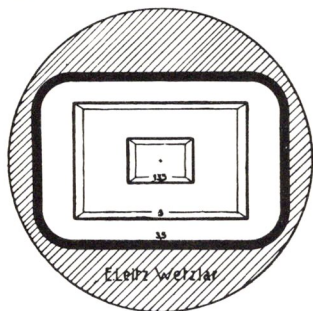
***) When using codewords in ordering a Universal view-finder in leather case, the codeword for the leather case can for simplicity's sake be combined with the codeword for the view-finder, e.g. Universal view-finder "Vidom" in "Vilui" leather case: "Vidomvilui".



Small Universal Finder

for specific combinations of lenses.

In contrast to the "Vidom" universal view-finder the second type of finder is only designed for specified combinations of



lenses (see table of prices). The various fields are indicated on a line-drawn plate, as shown in the adjacent illustration. The parallax between view-finder and lens is compensated for just as in the case of the "Vidom" universal view-finder by tilting the support of the finder.

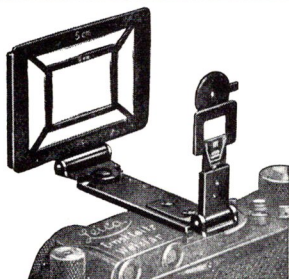
A fuller description is contained in our pamphlet: "Special View-finders for the Leica Camera".

Small Universal Finder with line-drawn plate and parallax compensation: —

	Codeword	Codeword	
		Chromium-plated	
Pattern I for 3.5—5— 7.3 cm. lenses	Viuna	£ s. d.	Viunachrom } £ s. d.
„ II „ 3.5—5— 9 cm. „	Vizwo	} 3.8.6	Vizwochrom } rowspan="4" style="vertical-align: middle;">3.10.6
„ III „ 3.5—5—10.5 cm. „	Vitre		Vitrechrom
„ IV „ 3.5—5—13.5 cm. „	Vifur		Vifurchrom

Solid leather case for same Vienn*) 0.4.0

*) When using codewords in ordering a Universal view-finder in leather case, the codeword for the leather case can for simplicity's sake be combined with the codeword of the view-finder, e. g. Universal view-finder "Viuna" in "Vienn" leather case: "Viunavienn".



**Frame Finder
for the Leica Camera.**

Can be highly recommended, especially for sports photography and for exposures from aeroplanes.

Its most noteworthy feature is that it covers all possibilities of use, because it is not only of service for the standard lens of 5 cm. (2 ins.) focal length, but also shows the angle of field for the 3.5 cm. and 9 cm. "Elmar" lenses, as well as the 7.3 cm. "Hektor" lens. By fixing a special mask on the front side to cut down the angle of view it can also be adjusted for the long-focus lenses of focal length 10.5 and 13.5 cm., which are very often used in sports photography.

So as to facilitate the exact alignment of the narrow angle of view when the long-focus lenses are being used, and to exclude slight deviation of the line of sight to one side or the other, a pin-hole can be clipped in position in front of the rear sighting aperture.

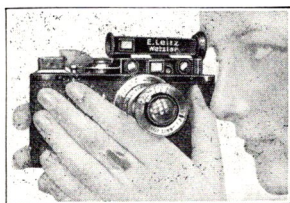
Parallax in the case of close-ups can be compensated for by vertical displacement of the back sight of the finder.

Frame Finder for the Leica as described above	Codeword	<i>£ s. d.</i>
	Rasuk	1. 8.0
Adjusting mask to fit, for the 10.5 and 13.5 cm. lenses	Ramet	0. 3.6
	Rasal	1.11.6

Special finder for wide-angle

Elmar lens (3.5 cm.), similar to the normal finder of the Leica, for attachment to the camera

Weisu **1. 5.0**

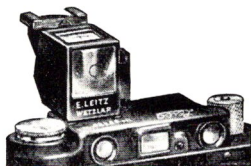


Angular View-Finder.

Makes it possible to take photographs inconspicuously while facing in a direction at right-angles to that of the subject; one can, in a manner of speaking, photograph "round the corner" with it. It cannot be excelled for really natu-

ral pictures of figure studies, genre subjects and street scenes, taken without the persons included being conscious of the taking of the picture.

Angular view-finder for Leica Models II and III with front prism attachment for focusing at right angles	Codeword	£ s. d.
	Wintu	1.17.6
Chromium-plated finish: Wintuchrom . . . £ 2.1.6		
Solid leather case for same	Winat	0. 6.6
	Wirin	2. 4.0
Morocco leather purse for "Wintu" . .	Eurus	0. 2.0
Deerskin purse for "Wintu"	Eukol	0. 2.0
Angular view-finder for Standard Leica, without front prism attachment	Winko	1.11.0
Solid leather case for same	Witui	0. 6.6
	Winek	1.17.6



Reflecting View-Finder

for the Leica camera will always be found especially convenient in those cases in which a lower viewpoint is desirable, as for example in child photography and pictures of small animals.


The bright image in the view-finder, sharply cut off by the edges of the finder, appears upright and laterally correct. The margins of the image in the finder correspond to the use of the 5 cm. lenses in Leica negative size.

Reflecting view-finder for the Leica camera	Aufsu	1.11.6
Solid leather case for same	Aufet	0. 3.6
	Aufor	1.15.0


Filters

The various filters supplied for use with the Leica camera are obtainable in screw-in or slip-on mounts. While the slip-on filters can be used at the same time as front lenses by means of an intermediate ring (see under front lenses), this possibility does not exist with the screw-in filters.


Screw-in filters for 3.5 cm. and 5 cm. "Elmar" lenses only*):

	Codeword	<i>£ s. d.</i>
 Yellow filter No. 0, very light . . .	Fixta	0.10.0
" " No. 1, light	Firhe	0.10.0
" " No. 2, medium	Firmy	0.10.0
Ultra-violet filter for high altitudes (over 6000 ft.)	Fiore	0.10.0
Green filter for panchromatic films	Fixio	0.14.0
Red filter for infra-red films	Fibob	0.12.0
Morocco leather purse for one of these filters	Euvil	0. 1.6
Deerskin purse " " " " " "	Eukut	0. 1.6

Slip-on filters for 3.5 cm. and 5 cm. "Elmar" lenses only:

 Yellow filter No. 0, very light	Fiuns	0.12.0
" " No. 1, light	Filby	0.12.0
" " No. 2, medium	Filge	0.12.0
Morocco leather purse for one of these filters	Euvil	0. 1.6
Deerskin purse for one of these filters	Eukut	0. 1.6

Slip-on filters for all Leica lenses except "Hektor" F/1.9 of 7.3 cm. focus:

 Yellow filter No. 0, very light	Fihel	0.16.0
" " No. 1, light	Figro	0.16.0
" " No. 2, medium	Figam	0.16.0
Graduated yellow filter	Firad	1. 4.0
Ultra-violet filter for high altitudes (over 6000 ft.)	Fiola	0.16.0
Green filter for panchromatic films	Fipos	1. 0.0
Red filter for infra-red films	Fikyb	0.18.0
Morocco leather purse for one of these filters	Euvil	0. 1.6
Deerskin purse for one of these filters	Eukut	0. 1.6

*) If the screw-in filters are intended for Leica cameras with a lower serial No. than 9500, this fact must be specially stated.

Screw-in filters for "Hektor" F/1.9 of 7.3 cm. focus only: Codeword £ s. d.



Yellow filter No. 0, very light	Fiwas	0.18.0
" " No. 1, light . .	Fireg	0.18.0
" " No. 2, medium.	Fiwig	0.18.0
Ultra-violet filter for high altitudes (over 6000 ft.) . .	Fiwet	0.18.0
Green filter for panchromatic films	Firyx	1. 6.0
Red filter for infra-red films	Fiplo	1. 2.0
Morocco leather purse for one of these filters	Euvat	0. 2.0
Deerskin purse " " " " "	Eukab	0. 2.0

Slip-on filters for "Hektor" F/1.9 only:



Yellow filter No. 0, very light	Fiopy	1. 0.0
" " No. 1, light . .	Filso	1. 0.0
" " No. 2, medium.	Fippa	1. 0.0
Graduated yellow filter . .	Figil	1.10.0
Ultra-violet filter for high altitudes (over 6000 ft.) . .	Fiosi	1. 0.0
Green filter for panchromatic films	Fisap	1. 8.0
Red filter for infra-red films	Fiomu	1. 4.0
Morocco leather purse for one of these filters	Euvat	0. 2.0
Deerskin purse " " " " "	Eukab	0. 2.0

Lens hood



For against - the - light effects in subjects with oblique front lighting, designed for the 5 cm. "Elmar" lens. . .

Large lens hood, extensible for the 13.5 cm., 9 cm., 5 cm., 3.5 cm. "Elmar" lenses, as well as the 13.5 cm. and 5 cm. "Hektor" and the 5 cm. "Summar" lenses . .	Fison	0. 2.6
	Fikus	0.16.6

Supplementary Front Lenses



The supplementary front lenses are used for photographing small animals, plants, art objects, etc. at shorter distances than $3\frac{1}{2}$ ft., as well as for the copying of letters, illustrations, documents, etc.

They are achromatic positive lenses which have a strong converging action on the parallel or slightly converging rays in the beam falling on the lens, with the effect of bringing the object nearer and increasing the size of the image. The exposure required remains the same when the front lens is used as with the Elmar lens without supplementary front lens.

The supplementary front lenses are only supplied for the lenses of 5 cm. focus; they are merely screwed into place in the front of the lens mount. In the case of the "Summar" lens F/2, a special intermediate ring is necessary.

Exact data as to the appropriate lens focus, distance and permissible dimensions of the object, as well as the degree of reduction obtained and the depth of focus, can be ascertained from our "Tables for the Leica Camera".

Front lens No. 1 for the Standard 5 cm. "Elmar" lens , for objects of size $16\frac{9}{16} \times 24\frac{13}{16}$ ins. to $8\frac{9}{16} \times 12\frac{7}{8}$ ins., at distances from $39\frac{1}{2}$ to $22\frac{9}{16}$ ins. (reduction obtainable 1:9)	Codeword	<i>ℒ s. d.</i>
	Elpro*	1. 2.0
ditto No. 2 for objects of size $8\frac{7}{16} \times 12\frac{5}{8}$ ins. to $5\frac{5}{8} \times 8\frac{1}{2}$ ins., at distances from $21\frac{9}{16}$ to $15\frac{13}{16}$ ins. (reduction obtainable 1:6)		
	Elpik*	1. 3.0
ditto No. 3 for objects of size $4\frac{1}{4} \times 6\frac{5}{16}$ ins. to $3\frac{3}{8} \times 5$ ins., at distances of $12\frac{1}{4}$ to $10\frac{11}{16}$ ins. (reduction obtainable 1:3.5)		
	Elpet*	1. 3.0

*) If the supplementary front lenses are intended for Leica cameras with a lower serial No. than 9500, this fact must be specially stated.

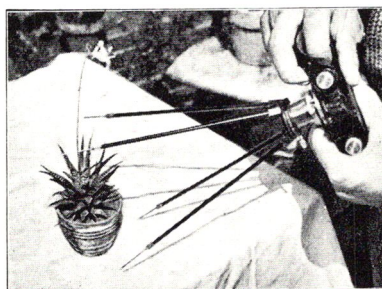
	Codeword	<i>L s. d</i>
Supplementary front lens No. 1 for "Hektor" lens F/2.5 of 5 cm. focus and "Summar" lens F/2 of 5 cm. focus . .	Hepro	1. 2.0
ditto No. 2	Hepik	1. 3.0
ditto No. 3	Hepet	1. 3.0
Intermediate ring for the use of the front lenses "Hepro", "Hepik" and "Hepet" in conjunction with the "Summar" lens F/2 of 5 cm. focus	Vorgi	0. 3.6
Intermediate ring for the use of the front lenses in conjunction with slip-on filters .	Firgi	0. 1.6
Morocco leather purse for one of these front lenses	Euvil	0. 1.6
Deerskin purse for one of these front lenses	Eukut	0. 1.6

"Bevor" Setting Device

for the use of supplementary front lenses.

Simplifies setting the camera to the correct distance from the object and the rapid adjustment of the margins of the picture

in exposures made with the No. 2 and No. 3 supplementary front lenses. It is very popular for exposures of small animals, plants, and art objects, as well as for copying documents and drawings.



The device consists of four extensible legs adjustable for various object distances, together with a clamping ring by

which it is firmly attached to the lens mount (see illustration). The field of view is defined by the points of the four legs.

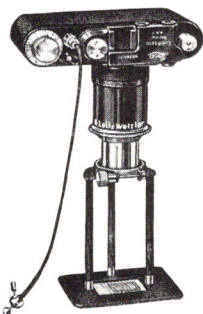
A full description is contained in our list "Auxiliary Reproduction Devices".

Setting Device for the Leica with 5 cm. "Elmar" or "Hektor" lens in conjunction with supplementary front lens No. 2 or 3, for objects up to about $8\frac{1}{2} \times 5\frac{5}{8}$ ins. in size	Codeword	£ s. d.
Four interchangeable intermediate rods for the "Bevor", for exposures with supplementary front lens No. 2 with helical focusing mount set to ∞ (infinity) for objects up to about $12\frac{5}{8} \times 8\frac{7}{16}$ ins. in size	Bevor	1. 9.0
	Betab	0.10.6

Auxiliary devices for photographing small objects

These accessories are made in two different forms, one for **equal-size reproduction** and one for **exposures with scales of reduction of 1 : 1 $\frac{1}{2}$, 1 : 2 and 1 : 3**. Each of these two accessories can be supplied for the 5 cm. and 3.5 cm. "Elmar" lenses. The range of use of these devices covers small objects of every imaginable kind, for example, coins, postage stamps, tiny animals, insects and plants, art objects, etc.: they are

also pre-eminently suitable for legal purposes, such as the photography of fingerprints, handwriting tests, etc. and for clinical subjects.



For exposures in natural size

Auxiliary Device for the Leica with 5 cm "Elmar" lens for exposures in natural size (scale of image 1:1), consisting of lens collar engraved 1:1 and special stand as shown in the adjoining illustration

	Belun	£ 1.17.6
The same device, but for the 3.5 cm "Elmar"	Beins	£ 1.17.6



For exposures
at ratios of reduction
of 1:1½, 1:2 and 1:3

Auxiliary Device for the Leica with 5 cm. "Elmar" for exposures at a small scale of reduction (scale 1:1½, 1:2 and 1:3), consisting of three different lens collars engraved 1:1,5, 1:2 and 1:3, stand with universal clamping ring, and four dis-

placeable legs as shown in the adjacent illustration Codeword *ℒ s. d*
Bemar 2.16.0

The same device, but for the 3.5 cm. "Elmar" Bekur 2.16.0

Universal Setting Device combining the uses of the "Bemar", "Bevor" and "Betab" devices, consisting of a universal clamping ring with the four legs each of the "Bemar" and "Bevor" devices, three lens collars engraved 1:1,5, 1:2 and 1:3, and four intermediate rods as for the "Betab" device Besal 4. 1.0



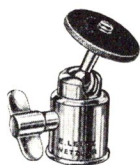
Small Illuminating Lamp

For use with the auxiliary devices, with a circular base and flexible metallic

support capable of being bent in any direction, including 25-watt lamp for direct connection to the lighting circuit Belos*) 1.11.0
Spare lamp for "Belos" Berat*) (Δ) 0. 5.6

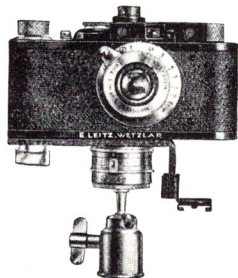
*) When ordering please state the local supply voltage.

Short wire release with screw fixing (see illustration at foot of p. 26)	Codeword Finot	£ s. d. 0. 2.6
Wire release 10 ft. long , for operation from a distance	Fidri	0.10.6
do. 20 ft. long	Fisex	0.12.6



The Ball-Jointed Tripod Head

is essential for upright tripod exposures, because the Leica has only one tripod bush for horizontal pictures. It can be turned in any direction so that the Leica can be brought into the desired position.
Codeword: **Fiaku** Price £ **0. 7.6**



The Panoramic Tripod Head

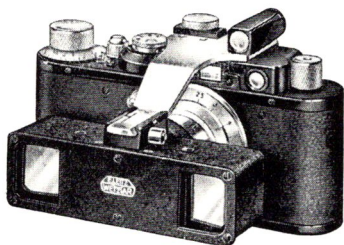
and the angular bracket belonging to it make it possible to take composite exposures of a panorama, up to a complete revolution, either upright or horizontal. The scale ring of the panoramic tripod head is interchangeable and can be supplied in any of the following models.

Panoramic Tripod Head for lenses of 5 cm. focus only	Codeword Farux	£ s. d. 1. 1.0
Interchangeable scale ring for the 3.5 cm. "Elmar"	Faros	0. 4.6
Interchangeable scale ring for the 7.3 cm. "Hektor"	Fawag	0. 6.6
Interchangeable scale ring for the 9 cm. "Elmar"	Faxis	0. 6.6
Interchangeable scale ring for the 10.5 cm. "Elmar"	Faski	0. 6.6
Interchangeable scale ring for the 13.5 cm. "Elmar" or "Hektor"	Farly	0. 4.6
Angular bracket for same	Fiavi	0.11.6
Slip-on case level for panorama exposures	Fibla	0. 6.6



The Stereo Slide

permits the making of stereo-pictures of stationary objects by sideways movement of the camera between the two exposures. In general a displacement of about 65—75 mm. ($2\frac{1}{2}$ —3 ins.) is preferred; the slider is marked at the 75 mm. distance. For long-distance exposures without foreground the lateral displacement may be extended to 150 mm. (6 ins.), in order to obtain a satisfactory stereoscopic effect. Codeword: **Fiate** Price £ 1.1.0



Leica "Stereoly" Stereo Attachment

for the 5 cm. "Elmar" and "Hektor" lenses renders it possible, in contrast to the "Fiate" stereo slide, to take

stereoscopic pictures even of moving objects: it thus gives the Leica the possibilities of a stereo-camera.

The special arrangement of prisms contained in the patented attachment permits full use of the optical properties of the lens at all times. The two stereo-pictures are each upright and of size 18×24 mm. ($1 \times \frac{3}{4}$ inch).

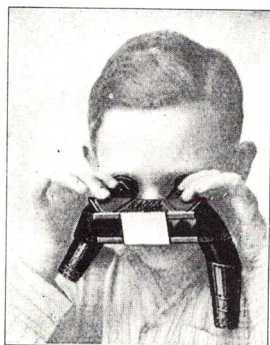
The increase in exposure at fairly large apertures scarcely amounts to 1.5 times, and at smaller apertures from F/12.5 downwards only 1.1 times.

Full details are contained in the special list No. 7155. Codeword £ s. d

Stereo Attachment for Leica Models II and III in leather case	Vorsa	6.13.6
ditto for Standard Leica	Vorstan	6.13.6

Stereo Viewing Apparatus

For viewing pictures made with the stereo attachment use is made of a viewing apparatus specially designed for this purpose, which gives a completely faithful representation of stereoscopic relief. The two eyepieces of the device are movable and can be adjusted to the condition and separation of the eyes of the individual user.



The stereo transparencies are made by means of the "Eldia" or "Kofim" printing apparatus (see pp. 41 and 43). The printing process is exactly the same as the making of ordinary positive films.

The reversal of the two images which is usually necessary is thus completely eliminated and this represents a special advantage of the stereo attachment.

Enlargements of the stereo negatives made in the usual fashion can also be viewed by means of a stereoscope of the normal type.

Full details are contained in the special list No. 7155.

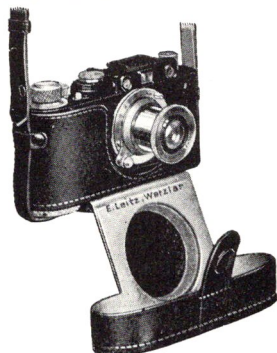


Stereo viewing apparatus

in case **Votra** **£ 7. 5. 0**

Stand with round base for supporting stereo viewing apparatus

. **Votiv** **0.14.6**



Leather Cases for the Leica with and without Accessories

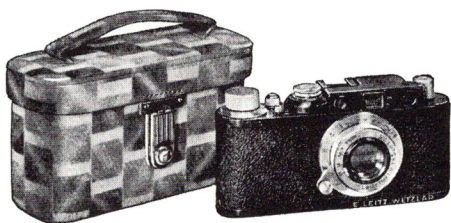
Ever-ready cases for the Leica:

Ever-ready case , velvet-lined, with holding screw*) and sling strap, for the Leica Model II or III or Standard Leica alone	Codeword	£ s. d.
	Esnar	1. 4.0
Ditto *), but with room for the angular viewfinder, particularly for the Leica Model II or III	Esmal	1. 7.0
Ditto *), but for the Leica and "Summar" F/2 lens in collapsible mount	Esfus	1. 5.6
Ditto *), but for the Leica and "Summar" F/2 lens in non-collapsible mount	Esfab	1. 7.0
Ditto *), but for the Standard Leica with range finder	Esmos	1. 4.0

Small leather cases and purses:

Morocco leather purse with clip fastening, for the Leica Model II or III or Standard Leica alone	Ettas	0. 9.0
The same purse of deerskin	Ettel	0. 9.0
The same purse of calf leather (green, blue, red, brown)	Epoch	0.11.0
Morocco leather purse with clip fastening for the Standard Leica with range finder	Eusaf	0.10.0

*) The **metal key** given with each Ever-ready case serves to facilitate the loosening of the holding screw when the case is screwed in place on the tripod.



The case for the lady:

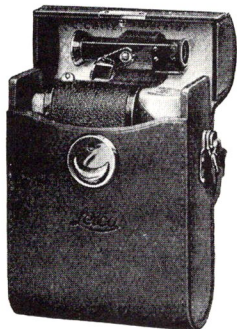
Camera case of coloured calf-leather (uniformly coloured green, red, lilac, dark brown and light brown, as well as chequered browns).

Codeword: **Etkal** £ 2. 5.0

Brown solid leather case with hand strap, for the Leica Model II, III or Standard alone, as shown in the adjoining illustration.

Codeword: **Etrux** £ 0.11.0

Leather cases for the Leica and accessories:



Brown solid leather case with sling strap (roughly $6\frac{3}{4} \times 4\frac{1}{2} \times 2$ ins. in size) for the Leica with angular view-finder (or range finder of the Standard Leica) and 2 extra spool chambers.

Codeword: **Etrin** £ 1. 3.6



Brown solid leather case with sling strap (roughly $7 \times 6 \times 2\frac{1}{4}$ ins. in size) for the Leica Model II or III with two lenses, viz. 5 cm. and 10.5 cm. "Elmar" lenses, as well as the "Vidom" universal viewfinder, three yellow filters and one extra spool chamber.

Codeword: Ettwo £ 1.7.0



Brown solid leather case with sling strap (roughly $6\frac{1}{4} \times 6\frac{1}{4} \times 3\frac{1}{4}$ ins. in size) for the Leica with three lenses, viz. 5 cm. "Elmar", 7.3 cm. "Hektor" (or 9 cm. or 10.5 cm. "Elmar") and 3.5 cm. "Elmar" (or 5 cm. "Hektor" or "Summar") in addition to the "Vidom" universal viewfinder, angular viewfinder (or range finder of the Standard Leica*), two filters, 2 front lenses, and one extra spool chamber.

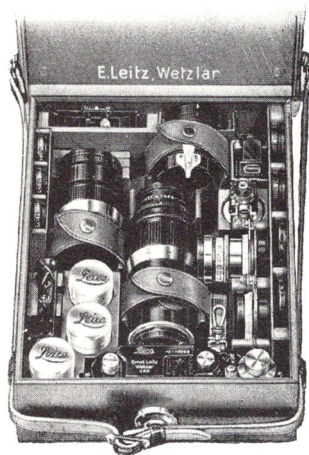
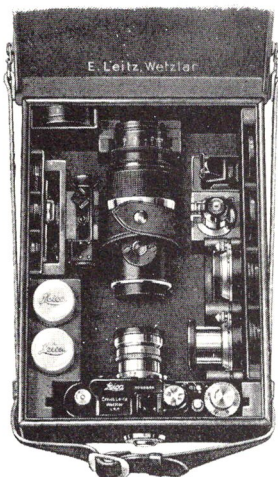
Codeword: Ettre £ 2.10.0

*) Only when specially ordered.

Brown solid leather case with sling strap (roughly $7\frac{1}{4} \times 10 \times 3\frac{1}{4}$ ins. in size) **for the Leica with four lenses**, the 5 cm. and 3.5 cm. "Elmar" lenses, the 5 cm. "Hektor" or "Summar" and 13.5 cm. "Elmar" or "Hektor" (or the 9 cm., 10.5 cm. "Elmar" or 7.3 cm. "Hektor") as well as the "Vidom" universal view-finder, angular view-finder (or range finder of the Standard Leica*), reflecting view-finder, four filters, three front lenses and two extra spool chambers

Codeword *£ s. d.*

Etneu 2.14.0



Brown solid leather case with sling strap (roughly $7\frac{3}{4} \times 9\frac{3}{4} \times 3\frac{1}{4}$ ins. in size) **for the Leica with 5 lenses**, viz., the 5 cm. and 3.5 cm. "Elmar" lenses, 5 cm. "Hektor" or "Summar", 13.5 cm. "Elmar" or "Hektor" (or the 9 cm. "Elmar"), the 7.3 cm. "Hektor" (or the 10.5 cm. "Elmar") as well as the "Vidom" universal view-finder, angular view-finder (or range finder of the Standard Leica*), reflecting view-finder, frame finder, four filters, three front lenses and three extra spool chambers

Etgus 3. 6.0

*) Only when specially ordered.

	Codeword	<i>£ s. d.</i>
Deerskin purse with clip fastening for the 3.5 or 5 cm. "Elmar" or for the 5 cm. "Hektor"	Ettig	0. 6.6
ditto for the 5 cm. "Summar" F/2	Etbul	0. 9.0
ditto for the 7.3 cm. "Hektor"	Ettox	0. 9.0
ditto for the 9 cm. "Elmar"	Etton	0. 9.0
ditto for the 10.5 cm. "Elmar"	Ettyr	0. 9.0
ditto for the 13.5 cm. "Elmar" or "Hektor"	Ettum	0.10.0

Smaller holders

for range finders, yellow filters, supplementary front lenses, special view-finders, etc., will be found mentioned under the articles in question.

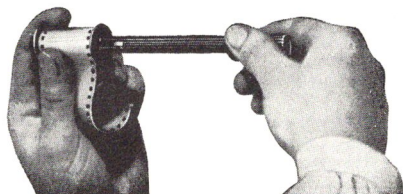
Accessory Equipment for the Darkroom

	Page
Film trimming template	38
Hand film winder	38
Mechanical winder	38
Negative viewer	39
Developing drum	39
Correx developing tank	40
Lantern Slide printing apparatus . .	41
Enlarging apparatus, see page . .	57



The trimming template for Leica films

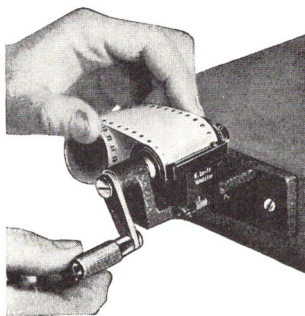
is greatly to be recommended for the prescribed trimming of the Leica films. Trimming that is not carried out exactly in the prescribed fashion may easily cause jamming of the camera mechanism. Codeword: Ablon £ 0. 5.6



The hand film-winder

very greatly facilitates the winding of the film on to the centre spool. A convenient and very practical accessory.

Codeword: Agrif £ 0. 1.6

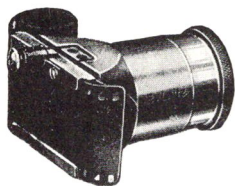


The mechanical winder

serves in the same way for winding the film on to the centre spool. It permits extremely rapid working.

Codeword: Aspul £ 0.12.6

The Leica negative viewer is of great service in examining and selecting the individual images of a film strip with respect



to their pictorial qualities and suitability for enlargement. A small punching device is provided for clearly marking the selected negatives in such a way that they can be detected even in a dimly lit darkroom by the feel of the nick

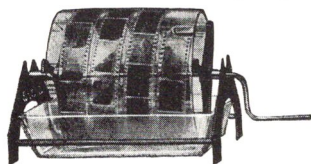
which is made in the film. In the case of numbered films the number of the negative is simultaneously visible in the viewing aperture of the device. The magnification given is about five times.

Codeword: **Natra** £ 1.18.6

Small opal glass plate for placing in position in front of the negative viewer; gives an evenly illuminated field of view and in this way facilitates using the viewer.

Codeword: **Namas** £ 0. 5.6

The Leica developing drum is an appliance especially suitable for rapid film development, because it permits constant observation of the film as development proceeds.



Leica developing drum,

consisting of: Rotating glass cylinder, metal support and two glass dishes 13 × 18 cm. (7¹/₄ × 5¹/₄ ins.)

Codeword £ s. d.

Fiman 1. 8.0

Metal support alone (without glass cylinder, handle or glass dish)

Fimor 0. 5.6

Axle with handle and spokes (without glass cylinder)

Fidax 0.12.6

Glass cylinder , without axle and handle, as spare	Codeword Ficyl	£ s. d. 0. 5.6
Glass dish 13 × 18 cm. (7 ¹ / ₄ × 5 ¹ / ₄ ins.) .	Fisul	2. 2.0
Film clip for the drum, as spare	Fixam	0. 0.9
Holder for holding single negatives for after-treatment	Fialt	0. 1.3



The Leica-Correx developing tank

is preferable for tank development by the time-and-temperature method, but is also suitable for rapid development if desired. It is also very popular for travelling purposes, since it is completely light-tight when the cover is in place, so that the development, rinsing, fixing and washing of the film can

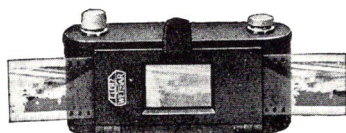
be carried out by daylight. It is only necessary for the film to be placed in the tank by red light or in darkness.

Further details are contained in special list.

Leica-Correx tank , 12 ozs. capacity (about 4 ³ / ₄ ins. diameter), with Correx celluloid band moulded on one side for films without backing	Codeword Cordo	£ s. d. 1. 1.0
Empty tank alone , 12 ozs. capacity . .	Corle	0. 9.0
Slip-in spool fitting the above	Corsu	0. 6.6
Correx band, moulded on one side , with clip	Corba	0. 6.0
Leica-Correx tank , 17 ¹ / ₂ ozs. capacity (about 5 ³ / ₄ ins. diameter), with Correx band moulded on both sides, suitable also for films with backing	Corun	1. 5.0
Empty tank alone , 17 ¹ / ₂ ozs. capacity .	Corol	0.10.6
Slip-in spool for the Leica-Correx tank .	Corid	0. 7.0
Correx band moulded on both sides , with clip	Coryb	0. 7.6
Small thermometer for measuring developer temperature with the tank closed . . .	Coret	0. 2.6

The Leitz "Eldia" Printer

serves for the making of contact prints from original Leica negatives on positive film strips for projection purposes or on bromide paper. A special printing aperture which is supplied to order also facilitates the making of prints from cine negatives of size $1 \times \frac{3}{4}$ inch. The negative film can be inserted and moved independently of the positive film, so that the prints can be made in any desired number or order. The spools in the printer accommodate a film strip of length fully 10 ft.



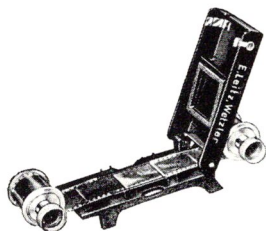
Positive films

for amateur printing are supplied by the well-known film makers in the usual

Leica-film length, namely 63 ins., in tins of three, and are obtainable from photographic dealers. A pamphlet containing instructions for use is supplied with every printer.

For further details see special list.

	Codeword	£ s. d.
Leitz "Eldia" Printer	Eldia	2.18.0
Film window-plate for $1 \times \frac{3}{4}$ inch pictures	Elkin	0.10.6

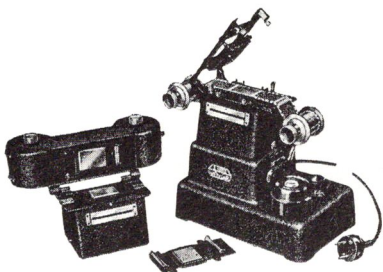


The "Eldur" Slide Printer

serves for the making of contact prints from original Leica negatives direct on to 5×5 cm. (2×2 ins.) lantern plates*). It makes this work very easy and convenient.

Leitz "Eldur" Slide Printer	Eldur	2.18.0
Metal pressure plate to fit, for contact printing on paper	Elgla	0.10.6

*) Supplied by the firms of Ilford, Agfa, Gevaert, Mimosa and Perutz.



Leitz

**Large Slide Printer
for 2 × 2 inch Glass
Slides and Film Strips.**

Though the requirements of the amateur are completely satisfied by the small "Eldia" and "Eldur" printers, they are not fully adequate for the needs of the photographic dealer or even for the Leica user who continually makes slides in considerable numbers. For these purposes our large Leica lantern slide printer is much more suitable. It meets all the demands which can be made of such an apparatus:—

Solid and durable all-metal construction.

Rapid and convenient operation with small demands on space and low working costs.

Arranged for printing 2 × 2 inch glass slides and positive film strips from Leica negatives.

Suitable also for the small sizes, 1 × 3/4 ins., 3 × 4 cm., and 4 × 4 cm.

Viewing device for the numbering of the Leica films.

Possibility of examining the density of the negatives in white light.

Light source adjustable in intensity.

Facility for viewing the negative at all times.

Device for holding back too light parts of the negative during the exposure.

Provision for affixing an exposure timer.

For further details see special list No. 7323.

Prices:

Leitz Large Diapositive Printer for making Leica 2×2 inch glass slides, consisting of:

Codeword £ s. d

Base housing with 15 watt lamp for direct connection to the lighting circuit, intensity adjustable by means of the built-in variable resistance, opal glass disc for diffused lighting, red observation light, light switch, connection for exposure timer, two negative film spools on holders and flex with plug and socket

Kolom*) 6. 4.0

in addition:

Glass slide attachment for 2×2 inch plates, film movement with $1\frac{1}{2} \times 1$ inch image aperture and rubber-lined pressure plate

Kogla 2.16.0

Kovir*) 9. 0.0

Film window-plate $1 \times \frac{3}{4}$ inch for the glass slide attachment

Koref 0. 9.6

ditto 3×4 cm.

Konaf 0.11.6

ditto 4×4 cm.

Kodre 0.13.6

2 negative film spools for 3×4 and 4×4 cm. films

Kosus 0. 5.6

Slip-on attachment for contact printing on paper

Elgla 0. 2.0

Leitz Large Diapositive Printer for the making of Leica film strips, consisting of:

Base housing as described above

Kolom*) 6. 4.0

in addition:

Positive Film Attachment with film movement and $1\frac{1}{2} \times 1$ inch window-plate, reversible positive-film housing with two spools holding up to 33 ft., sprocket drive with catch device, red viewing window and glass pressure plate for the film

Kotos 6.14.6

Kofim*) 12.18.6

*) When ordering please state the local supply voltage.

Leitz Universal Lantern Slide Printer for making Leica 2 × 2 inch glass lantern slides and Leica film strips, consisting of base housing, glass slide attachment and positive film attachment as described above . . .	Codeword	<i>£ s. d.</i>
	Kodia*)	15.14.6
15 watt lamp as spare	Osiam*) (A)	0. 5.6
Red viewing lamp as spare	Osrot*) (A)	0. 8.6

The Making of Leica Glass Lantern Slides:

The coated face of the 2 × 2 inch Leica lantern slide made in the printer is covered with a glass cover plate, a suitable mask being laid between, and bound round the edges. It is particularly advantageous to use masks cut from tinfoil, which should be so placed that the bright side faces the lamp when in the projecting lantern, in order that the light and heat rays falling upon it may be reflected.

In the same way positive films can be used to make glass slides of size 2 × 2 inches (one picture) or 4³/₄ × 1¹/₂ ins. (three pictures), by cutting up the film strip, placing the separate sections with suitable masks between two glass plates and binding the edges. No masks are necessary for the narrow glass slides of size 4³/₄ × 1¹/₂ ins.

	Codeword	<i>£ s. d.</i>
100 glass plates 2 × 2 ins.	Uglit	0.10.6
100 glass plates 4 ³ / ₄ × 1 ¹ / ₂ ins.	Uglas	0.12.6
100 black paper masks , size 2 × 2 ins. with 1 ¹ / ₂ × 1 ins. aperture	Umask	0. 3.6
100 tin foil masks , size 2 × 2 ins. with 1 ¹ / ₂ × 1 in. aperture	Ustol	0. 6.6
1 roll of gummed binding paper , to be moistened for use, 325 ft.	Umkle	0. 2.0

*) When ordering please state the local supply voltage.

Leica Accessories for the Scientist

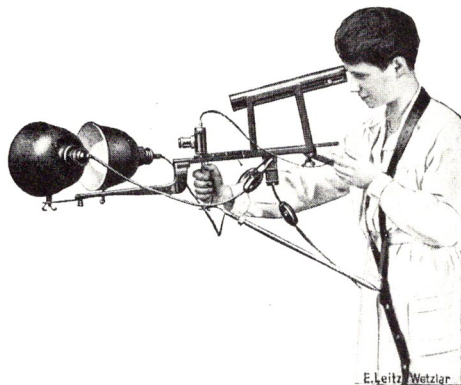
Contents:

	Page
Leitz Equipment for Photographing Surgical Operations	46
Leitz Micro Attachment for the Leica . .	48
Leitz X-Ray Reproduction Apparatus . .	49
Leitz Copying Appliances for the Leica	52

The foregoing paragraphs deal with those accessories for the Leica which equip the latter for the most varied purposes of amateur photography. To-day, however, the Leica photographic process is no longer confined to amateur photography, but has invaded a number of special branches of photography which have hitherto been the exclusive province of large, complicated and correspondingly expensive photographic equipment. It is precisely in this field of work that progressive scientists are continually discovering new applications for the Leica, too numerous and diverse to be specified at length. We therefore confine ourselves in the following section to a brief survey of the special accessories which we supply for such purposes. A full description of each appliance will be found in our special booklet "**Leica Accessories for the Scientist**" (List Photo No. 7298).

Leitz Equipment for Photographing Surgical Operations with the Leica Camera

after Prof. A. W. Fischer, Frankfort/M.*)



Equipment for Photographing Surgical Operations consisting of: frame with handle and chest support, with large telescopic finder and two 500 watt lamps with aluminium reflectors	Opfas**)	20. 3.0	Codeword	<i>£ s. d.</i>
Lower Body Strut with wide webbing sling	Opryl	1.11.0		
	Opdur**)	21.14.0		

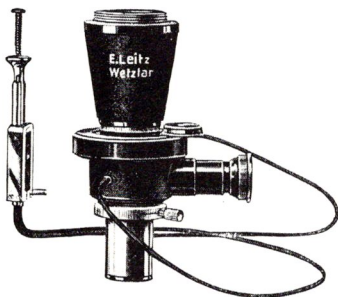
In addition:

Leica "Standard" with one spool chamber	Lemax	15. 0.0
or		
Leica Model II with one spool chamber	Lykup	22. 0.0
Supplementary front lens No. 1	Elpro	1. 2.0
ditto No. 2	Elpik	1. 3.0
Wire release , 20 ins. long	Opkom	0. 2.6
500 watt lamp , as spare	Osnit**) (A)	0. 15.0

*) Described in: "Zentralblatt für Chirurgie" No. 48, 1929.
**) When ordering please state the local supply voltage.

The Leica camera used in conjunction with the above equipment for photographing surgical operations can naturally be used equally well for general photographic purposes, especially for exposures of patients before, during and after treatment, for recording interesting pathological conditions on individual parts of the body etc. Here special reference should be made to our **Auxiliary Reproduction Devices for photographing small objects** (see p. 26 of this catalogue, and also list No. 7207a), which have already been thoroughly well proved for these last named special purposes*).

*) "Grossformat oder Kleinformat in der wissenschaftlichen Photographie?" by Dr. Walther Schultze, of the skin clinic of the University of Giessen, in the "Münchener Medizinische Wochenschrift", Vol. 79, part 1: original German article obtainable from us in reprint form as Leitz-Mitteilung No. 52.

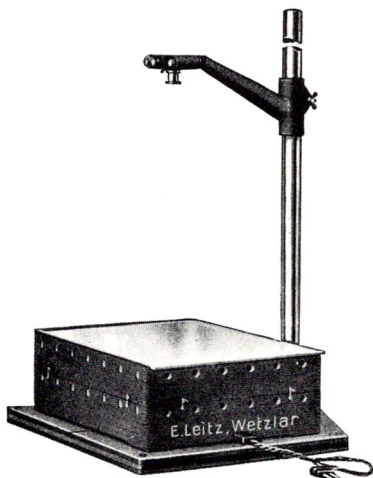


Leitz Micro Attachment for the Leica camera.

In this micro attachment we provide an accessory for the Leica camera with lens changing flange which permits the making of photomicrographs with the simplest manipulation and will therefore be very welcome to those interested in photo-

micrography. By virtue of the possibility of making up to 36 exposures without changing the film chamber, the Leica camera with the micro attachment is of special service in cases where it is desired to study and to record photographically an object undergoing rapid changes. Further, it is excellently suited for making a series of exposures at greater intervals of time of objects which show slower change but keep their position in the field of view, for example, studies of processes of growth or of crystallisation, etc. In this way the various phases are recorded on one film strip under the same conditions (lens, filter, exposure). To obtain a complete record of the preparation, pictures of its various parts can also be taken on a single strip of film for subsequent combination. In view of the cheapness of the sensitive material used in the Leica, the micro attachment is most serviceable for records of this type.

Micro Attachment with lateral viewing telescope and periplanatic eyepiece $\times 10$, adapted for use with the Leica with lens changing flange, including two wire releases, in case	Codeword	<i>L. s. d.</i>
	Mikas	14. 9.6
Automatic release (see illustration) . . .	Autas	0.19.0



Leitz Reproduction Apparatus for X-ray Plates and Film Sheets.

The projection of large X-ray plates and film sheets presents difficulties in that there are few, if any, projectors which are capable of projecting from sizes which may be as big as 20×16 ins. The best one can do in this case is to show such X-ray pictures in successive portions on the screen. Special equipment*) for the direct

projection of large X-ray plates is very expensive on account of the unusually large diameter of the lenses necessary, so that its acquisition will at the present time be impossible in all but a very few instances.

A way out of this difficulty is offered by another method made practicable by the Leica camera. By means of the Leica and the reproduction apparatus shown in the illustration, the original X-ray pictures are reduced on to standard cine film in the Leica size of $1 \times 1\frac{1}{2}$ ins. and the positive film so obtained is projected by means of one of our Small Projectors. By reason of their extraordinary sharpness these Leica pictures can be enlarged to a screen size of up to $10\frac{1}{2} \times 7\frac{1}{2}$ ft., with ample brilliance and clearness even for a large audience, such as will often attend medical lectures.

*) Those who are interested should ask for our special prospectus dealing with our X-ray diascope and epidiascopes.

Projector and lecture material can be transported without any difficulty, and the projection and changing of the pictures is carried out easily and conveniently. An advantage of this method which should be specially emphasized is the fact that the original plates and films are spared from use, while the cost of making the small slides is negligible.

Leica X-Ray Reproduction apparatus,

consisting of:

Baseboard of about 24 × 20 ins. (50 × 60 cm.), with the 4 ft. (1.20 metres) upright of the "Vamax" enlarger	Codeword	£ s. d.
Arm for above , for fixing the Leica camera	Vesta	4.13.0
Steel tape measure , self-rolling, with weight, fastened to the reproduction arm .	Vehal	1.17.6
Ground glass housing for exactly determining the margins of the image, complete with × 5 finder magnifier and protecting lid for the lens opening of the Leica	Stama	0.12.6
Illuminating box , 20 × 16 ins. (40 × 50 cm.), with six frosted cornice lamps, ground glass screen, opal glass screen and loose glass plate for holding the films flat	Vehig	1.17.6
Electric flex 12 ft. long with plug, connection and spliced press button switch . . .	Vekas*)	11.11.6
	Veduk(H)	0.13.6
	Verap*)	21. 5.6

In addition:

"Standard" Leica with one spool chamber or	Lemax	15. 0.0
Leica Model II with one spool chamber	Lykup	22. 0.0
Short wire release with fixing screw . .	Finot	0. 2.6
Supplementary front lens No. 1	Elpro	1. 2.0
ditto No. 2	Elpik	1. 3.0
ditto No. 3	Elpet	1. 3.0
Angular bracket for older reproduction arms for affixing the ground glass housing	Fosar	0. 8.6

*) When ordering please state the local supply voltage.

Small illuminating boxes, $7\frac{1}{4} \times 5\frac{1}{4}$ ins., $12 \times 9\frac{1}{2}$ ins. and 16×12 ins. (13×18 cm., 24×30 cm. and 30×40 cm.):

These illuminating boxes represent a valuable supplement to the X-Ray reproduction apparatus; they are naturally also capable of use in conjunction with our other copying appliances. Besides their use for the reproduction of smaller X-Ray plates they are excellently adapted for the reduction of 9×12 cm. and quarter-plate slides down to Leica size: the need for such an apparatus has been felt increasingly of late.

Illuminating box, $7\frac{1}{4} \times 5\frac{1}{4}$ ins. (13×18 cm.) in size, with four 15-watt lamps . **Vekot*** £ s. d. **4.12.6**

Illuminating box, $12 \times 9\frac{1}{2}$ ins. (24×30 cm.) in size, with three 25-watt tubular lamps **Vikul*** **6.14.6**

Illuminating box, 16×12 ins. (30×40 cm.) in size, with four 25 watt cornice lamps . **Veput*** **7.15.0**

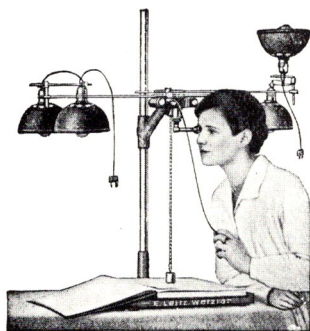
Tubular lamp, 25 watts, $11\frac{1}{4}$ ins. long, frosted, as spare for the "Vekas" and "Vikul" and "Veput" illuminating boxes Sofit*) (A) 0. 5.6

Spare lamp, 15 watts Oslam*) (A) 0. 5.6

Glass plates for holding flat objects which are liable to curl when placed on the illuminating box:

For the "Vekot" illuminating box	Veryk	0. 3.6
" " "Vikul" " "	Virup	0. 5.6
" " "Veput" " "	Velyp	0.10.6

*) When ordering please state the local supply voltage.



Leitz
Copying Appliances
for use in conjunction with
the Leica camera.

The X-Ray reproduction apparatus described on the preceding pages is naturally also suitable for general copying if the illuminating box is removed. Nevertheless, we supply a number of further special appliances for this purpose; these represent an important extension in the possibilities of usefulness of the camera for the amateur and have also been thoroughly proved in the hands of scientific experts*).

As will be seen from the following price list, the basis of this copying appliance lies in the baseboard and upright of our variable enlarging apparatus. Consequently anyone who already possesses such an apparatus can turn this at any time into a complete copying equipment by the subsequent addition of a suitable reproduction arm, etc. On the other hand there is the same possibility of converting a reproduction apparatus into an enlarger by the acquisition of a projector head with electric flex connection**).

Further information concerning the **manipulation** of the copying appliances is given in our special booklet, "**Leica Accessories for the Scientist**" (List No. 7298).

* "Ein neues Hilfsmittel für Bibliotheken und Archive: Der Kleinfilm" by Prof. Ernst Walsert, Basle, in the "Zentralblatt für Bibliothekswesen", vol. 45, 1928, pp. 417—420 (Verlag Otto Harrassowitz, Leipzig. "Die Leica im Dienste der Handschriftenforschung" by Dr. Otto Pretzl, Munich, *ibid.*, vol. 49, 1932, pp. 182—188.

** On request we will make special quotations for this to enquirers specifying the type of reproduction apparatus available and the pattern of enlarger desired.

Large Copying Appliance

Codeword £ s. d.

for objects up to about 25 × 17 ins.
(42 × 63 cm.) in size,

consisting of:

Baseboard of the "Valfa" (Filyt) enlarger,
but with 40 inch. (100 cm.) upright . . . **Veltu** 2. 4.6

Extra long arm for the above, for attaching
the Leica, with lug for the ground glass
housing **Vearm** 1.11.0

Steel tape measure for the convenient ad-
justment to the requisite camera distance,
self-rolling, with weight, fixed to the repro-
duction arm (see illustration on p. 52) . . **Stama** 0.12.6

Ground glass housing for exactly deter-
mining the margins of the image, complete
with × 5 finder magnifier and protecting lid
for the lens opening of the Leica **Vehig** 1.17.6

Illuminating device*), consisting of: four
adjustable 40 watt frosted bulbs, with
aluminium reflectors, short flex connection
and plug **Stafo**)** 6. 4.0

Copying Appliance complete . Together **Varip**)** 12. 9.6

In addition:

**Supplementary front lenses Nos. 1, 2
and 3** as described on p. 24.

*) If the exposures are to be made by daylight, the illuminating device can be omitted. However, for the sake of being independent of daylight this device is strongly recommended.

***) When ordering please state the local supply voltage.

Small Copying Appliance

for objects up to about $12\frac{3}{4} \times 8\frac{1}{2}$ ins. Codeword *l. s. d.*
 ($21\frac{1}{2} \times 32$ cm.) in size, consisting of:

Baseboard with 20 inch. (50 cm.) upright†) of the "Valoy" (Filoy) enlarger. . . . **Feffu** 1.16.6

Arm for the above for attaching the Leica, with a lug for the ground glass housing. . . . **Velif** 1. 8.0

Steel tape measure for convenient adjustment to the requisite camera distance, self-rolling, with weight, fixed to the reproduction arm (see illustration p. 52). . . . **Stama** 0.12.6

Ground glass housing for exactly determining the margins of the image, complete with $\times 5$ finder magnifier and protecting lid for the lens opening of the Leica **Vehig** 1.17.6

Small illuminating device††) for non-glossy originals, consisting of two adjustable frosted 40 watt lamps with aluminium reflectors, short flex connection and plug. Together: **Stali*)** 2.12.0

Copying Appliance complete **Vihak*)** 8. 6.6
 In addition:

Supplementary front lenses No. 2 and 3, as described on p. 24.

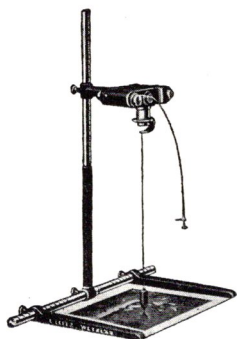
Spare frosted 40 watt "Nitro" lamp **Stabu*)** (A) 0. 2.0

Angular bracket for older reproduction arms, for fixing the ground glass housing **Fosar** 0. 8.6

†) The 20 inch upright only allows of the use of the No. 2 and 3 supplementary front lenses: for the No. 1 front lens the 40 inch upright as on the "Varip" is necessary. Cf. "Tables for the Leica Camera".

††) If the exposures are to be made by daylight the illuminating device can be omitted. However, for the sake of being independent of daylight this device is strongly recommended.

*) When ordering please state the local supply voltage.



Light Collapsible Travelling Copying Stand

It consists of telescopic tubes, two supporting feet and a carrying arm for the Leica. The upright is about 22 ins. (55 cm.) high and permits the use of the supplementary front lenses Nos. 2 and 3, so that originals up to about $8\frac{1}{2} \times 12\frac{3}{4}$ ins. ($21\frac{1}{2} \times 32$ cm.) can be covered. Both the vertical and horizontal tubes are graduated in inches (or cms.). Packed together in a **canvas carrying case** the copying stand is of size $12\frac{3}{4} \times 6$ ins. (15×32 cm.). Its **weight** is only about $3\frac{1}{4}$ lbs. The "Stali" small illuminating device is also suitable for use with this apparatus.

See also booklet "Leica Accessories for the Scientist".

Price:

Travelling copying stand, collapsible, including canvas carrying case with handle

Codeword *£ s. d.*

Stare 4.13.0

Plumb line with fastening clip, adjustable in length, for determining the centre of the image (see illustration)

Floth 0. 6.6

Together: **Staat** 4.19.6



Round Side-holder to protect the lid of the Leica in case of frequent use of the reproduction arm

Codeword: **Vezuk** £ 0. 3.0

Intermediate ring for the use of slip-on filters in conjunction with supplementary front lenses (see also under filters on p. 22)

Codeword: **Firgi** £ 0. 1.6

For the rapid copying of particular portions of books or manuscripts, etc., our

“Auxiliary Reproduction Devices for the Leica Camera”

are also very suitable. These devices are described in further detail on pp. 25—27 of this catalogue and in special booklet No. 7207a.

Leitz Enlarging Equipment

	Page
Valoy up to 3 × 4 cm. with 75 watt lamp	58
Valux up to 3 × 4 cm. with 100 watt lamp	60
Valfa up to 4½ × 6 cm. (vest pocket) with 75 watt lamp	63
Vakut up to 4½ × 6 cm. (vest pocket) with 100 watt lamp	65
Varyl up to 3½ × 2½ ins. (6½ × 9 cm.) with 75 watt lamp	66
Vamax, the dealer's enlarger	68
The 100 watt lamp for existing enlargers	73
Simple box enlargers with fixed lens focus	75

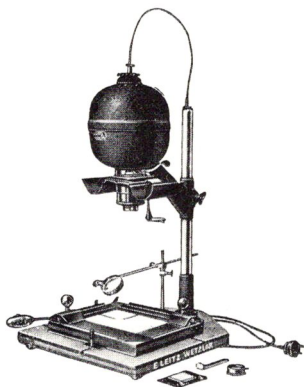
In all Leitz enlarging apparatus the principle used is that of illumination by diffused light, which in contrast to the directed light of condenser enlarging apparatus gives enlargements of soft harmonious quality and reproduces no small scratches or markings on the rear side of the film. This sort of illumination is therefore pre-eminently suitable for enlarging from miniature negatives.

The Apparatus

for the Small-Camera enthusiast:

The "Valoy" Variable Leica-Special Enlarger

for use with interchangeable Leica lenses.



This apparatus is specially designed for the needs of the Leica enthusiast. A particularly notable feature is the novel film guide which affords great convenience and rapidity in working. The lower plane surface of the illuminating lens, which can be raised or lowered by a lever movement, presses against the rear side of the film and thus holds it flat. For passing on to the next negative the illuminating lens is slightly raised and the film moved on till the next image to be enlarged appears in the aperture: then the illuminating lens is again lowered and the film thus held absolutely flat.

A lens changing flange permits the use of the interchangeable Leica lenses, of which the Standard 5 cm., F/3.5 "Elmar" lens is the most suitable for enlarging purposes. A special enlarging lens in screw-in mount can, however, also be supplied. Focusing of the image is carried out by means of a special helical movement in the lens mount of the apparatus. The lamp-house, which is large and well ventilated, contains a 75 watt opal lamp which can be easily centred from the outside if at any time after a change of lamp the image field should no longer be evenly illuminated.

The apparatus can be adjusted for use equally well with the **3 × 4 cm. and 4 × 4 cm. sizes***), by exchanging the Leica mask for another suitable slip-in mask.

The linear enlargement obtainable with the apparatus is about $8\frac{1}{2}$ times, when the 5 cm. "Elmar" is used.

*) The 4 × 4 cm. mask cuts off about 3 mm. in the corners.

For the

Leica only a LEITZ
Leica-Special Enlarger

Prices:

“Valoy” Enlarger

consisting of:

Baseboard with 20 inch. (50 cm.) upright†), with projector head with large-size lamp-house, 75 watt opal lamp in centring mount, for direct connection to the mains, electric flex with plug and press switch, new type film guide with condenser that can be raised and lowered, film stage with Leica film slide and side troughs, without lens, but with helical movement and thread for screwing in the Leica lenses:

without printing board, but with two clamp- Codeword £ s. d.
ing screws for fixing same **Valoy*)** 7. 5. 0
Spare lamp for “Valoy” **Flabu*)** (A) 0. 3. 4

“Valux”

High-Power Enlarger

The same apparatus as the “Valoy”, but with extra-powerful 100 watt spherical lamp of 1³/₄ ins. (40 mm.) diameter and two condenser lenses **Valux**)** 10.11.0

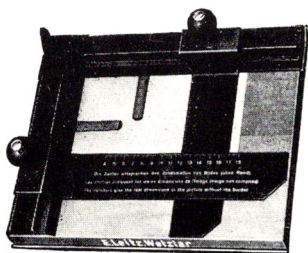
Spare lamp for “Valux” **Flako**)** (A)

†) If the enlarger is also to be used for reproduction work, it is advisable to order the 40 inch (100 cm.) upright, which is large enough to allow of the use of all three supplementary front lenses, in place of the 20 inch upright, which only permits the use of No. 2 and 3 front lenses.

Extra charge for the 40 inch upright £0.8.6*d.* (additional codeword: **Cento**). For other necessary equipment for reproduction work see p. 52 as well as the special catalogue: “Leica Accessories for the Scientist”.

* When ordering please state the local supply voltage.

** The illumination with this apparatus is about twice as great as with the “Valoy” enlarger. The 100 watt lamp, however, requires a resistance or a transformer to suit the voltage of the circuit: for prices for these, see p. 74. Full particulars are contained in our catalogue of enlarging equipment.



**Accessories
and Spare Parts for
"Valoy" and "Valux":**

The "Felat" printing board can be described as the universal printing frame of the Leica user. The hinged masking bands can be moved independently of each other and adjusted for any size between 3×4 cm. and $8\frac{1}{2} \times 6\frac{1}{2}$ ins. (13×18 cm.). The width of the white border of the enlargements can be varied at will between $\frac{1}{8}$ and $1\frac{5}{8}$ ins. (3 mm. and 40 mm.) by moving the paper guides; a scale gives a direct, exact reading of the width of the border.

Codeword £ s. d.

With centimetre ruling up to 13×18 cms. **Felat** 2.16.0

The same board, scaled in ins. up to $8\frac{1}{2} \times 6\frac{1}{2}$ ins. **Felis** 2.16.0

The same board for sizes up to 18×24 cms., with centimetre ruling . . **Felom** 3. 6.6

The same board, scaled in ins. up to 10×8 ins. **Feluk** 3. 6.6

"Fetra" printing board for sizes up to 10×8 ins., with hinged glass plate, without masking bands **Fetra** 1.17.6

Glass plate $11 \times 7\frac{1}{2}$ ins. (19×28 cm.) as spare for the "Fetra" printing board . **Glapa** 0.10.6

Orange filter in swing mount: it allows the exact adjustment of the image to be carried out by direct observation on the sensitive enlarging paper **Fylto** 1.10.0

Slip-on lens ring for operating the iris diaphragm; it is placed over the 5 cm.

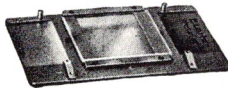


“Elmar”†) for conveniently adjusting the iris diaphragm: relative factors for the exposure times are engraved . .

Valau 0.10.6

5 cm. Leitz lens F/3.5, in simple screw-in mount, with iris diaphragm and relative exposure factor markings

Varob 5. 3.6



Film slide for the 3 × 4 cm. size . . .

Vavir 0.12.6

ditto for the 4 × 4 cm. size*)

Vakes 0.12.6

For single Leica negatives: 1 × 1½ inch (24 × 36 mm.) mask with 4¾ × 1½ in. (3½ × 12 cm.) hinged double glass plate .

Vazel 0. 8.6

For single 3 × 4 and 4 × 4 cm. negatives:

Special mask 3 × 4 cm.

Vazup 0. 3.0

ditto 4 × 4 cm.

Vazis 0. 3.0

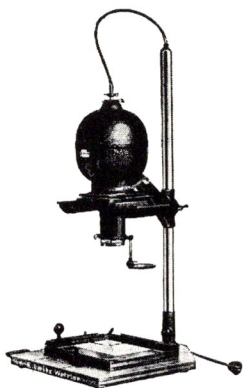
In addition:

Hinged double glass plate, 6½ × 2 ins. (5 × 16 cm.)

Vazof 0. 9.6

†) If intended for use with the 5 cm. “Hektor”, this should be specified when ordering.

*) The 4 × 4 cm. mask cuts off about 3 mm. in the corners.



“Valfa”

Variable Enlarger

for negatives up to the
 $4\frac{1}{2} \times 6$ cm. (vest pocket) size.

In accordance with its intended purpose, this enlarger is only supplied with a fixed “Elmar” lens of $7\frac{1}{2}$ cm. (3 inches) focal length: the lens is fitted with iris diaphragm with relative factors for exposure times and simple helical movement for focusing the image.

The absolutely uniform illumination of the entire image is achieved by the use of two illuminating lenses which receive diffused light from the 75 watt opal lamp. Just as the “Valoy” enlarger, this apparatus is also equipped with the novel and very convenient film guide with illuminating lens that can be raised and lowered.

Slip-in masks which are immediately interchangeable one with another are provided for the usual sizes up to $4\frac{1}{2} \times 6$ cm. (vest pocket). The slot through which the negative is inserted is large enough to admit 9×12 cm. plates for making enlargements from portions of the image.

Prices:

Codeword £ s. d.

“Valfa” Enlarger, consisting of: Base-board with 32 inch (80 cm.) upright†), with projector head with large lamp-house, 75 watt opal lamp in centring mount, for direct connection to the main, electric flex with plug and press switch, two illuminating lenses, film stage with novel film guide and side troughs, slip-in mask $4\frac{1}{2} \times 6$ cm. and double glass plate 10×19 cm. ($7\frac{1}{2} \times 4$ ins.); F/3.5 Leitz lens of $7\frac{1}{2}$ cm. (3 ins.) focus in fixed mount with helical movement, iris diaphragm and aperture ring with relative factors for the exposure times: without printing board, but with two clamping screws for fixing the same **Valfa*) 20. 3.0**

Spare lamp for “Valfa” **Flabu*)(A) 0. 3.4**

†) If the enlarger is also to be used for reproduction work, it is advisable to order the **40 inch (100 cm.) upright**, which is large enough to allow of the use of all three supplementary front lenses, in place of the 32 inch upright, which only permits the use of No. 2 and 3 front lenses.

Extra charge for the 40 inch upright: 2/- (Additional codeword: **Fehun**). For other necessary equipment for reproduction work see p. 52 as well as the special catalogue: “Leica Accessories for the Scientist”.

*) When ordering please state the local supply voltage.

"Vakut" High-Power Enlarger

Codeword £ s. d.

The same apparatus as the "Valfa", but with 100 watt spherical lamp of 40 mm. ($1\frac{3}{4}$ ins.) diameter
Spare lamp for "Vakut"

Vakut*) 20.19.6
Flako*)(A)

Accessories and spare parts for both Models:

"Felat" printing board }
"Felom" printing board } see p. 61.
"Fetra" printing board }

Orange filter in swing mount, with supporting arm for screwing into the under side of the film stage, for adjustment of the image to be carried out by direct observation on the sensitive enlarging paper **Flaus** 2. 0.0

Slip-in Metal masks for the "Valfa" and "Vakut" enlargers

for film strips of size 4 × 6.5 cm. **Valky** 0.19.0
" " " " " 4 × 4 cm. **Valme** 0.19.0
" " " " " 3 × 4 cm. **Varso** 0.19.0
" " " " " 2.4 × 3.6 cm. **Vasix** 0.12.6

For plates and single film negatives

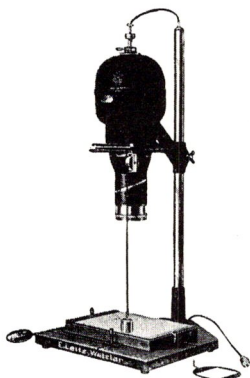
of size 4 × 6.5 cm. **Vatif** 0. 5.6
" " 4 × 4 cm. **Vatus** 0. 5.6
" " 3 × 4 cm. **Vaxko** 0. 5.6
" " 2.4 × 3.6 cm. **Vazyk** 0. 5.6

In addition:

Hinged double glass plate of size $6\frac{1}{2} \times 2$ ins. (5×16 cm.) **Vazof** 0. 9.6

Hinged double glass plate, $7\frac{1}{2} \times 4$ ins. (10×19 cm.), for the insertion of films and plate negatives up to $4\frac{1}{2} \times 6$ cm., as spare **Glanu** 0.12.6

*) The illumination with this enlarger is about twice as great as with the "Valfa" enlarger. The 100 watt lamp, however, requires a resistance or a transformer to suit the voltage of the circuit: for prices for these, see p. 74. Full particulars are contained in our catalogue of enlarging equipment.



“Varyl” Variable Enlarger

**for negatives up to $3\frac{1}{2} \times 2\frac{1}{2}$ ins.
($6\frac{1}{2} \times 9$ cm.)**

This enlarger is broadly similar to the “Valfa” enlarger, but in accordance with its particular purpose is equipped with a lens of focal length 9 cm. ($3\frac{1}{2}$ ins.) and the high relative aperture of F/4 in a fixed mount: it is fitted with iris diaphragm and aperture ring with relative factors for the exposure times. When small enlargements (up to about 3 diameters) are to be made, a supplementary lens is swung in front of the lens. The absolutely uniform illumination of the entire field is achieved by means of two illuminating lenses, which receive diffused light from the 75 watt opal lamp. The film stage allows of the insertion of plates up to 13×18 cm. ($7\frac{1}{4} \times 5\frac{1}{4}$ ins.) for the enlargement of selected portions of the image; films or small plates are held between hinged double glass plates, which are supplied with the apparatus. The normal 32 inch upright is tall enough to permit an enlargement of these areas up to about 7 diameters.

Prices:

"Varyl" enlarger, consisting of: Baseboard with 32 inch (80 cm.) upright†), projector head with large size lamp-house, 75 watt opal lamp in centring mount, for direct connection to the main, electric flex, plug and press switch, two illuminating lenses, large film stage, $3\frac{1}{2} \times 2\frac{1}{2}$ ins. (6.5×9 cm.) metal mask made to the exact dimensions of 6.1×8.6 cm. so as to mask off unusable edges of the negative, $7\frac{1}{2} \times 4$ inch double glassplate for films and small plates; fixed F/4 Leitz lens of focal length 9 cm. ($3\frac{1}{2}$ ins.) with helical movement, iris diaphragm and aperture ring with relative factors for exposure times: without printing board, but with two clamping screws for fixing
same **Varyl*)** £ s. d. **22.15.0**
Spare lamp for "Varyl" **Flabu*)** (A) **0. 3.4**

Accessories and Spare Parts for both Models:

"Felat" and "Felom" printing boards } see p. 61
"Fetra" printing board }

Orange filter in slip-on mount: is set in front of the lens of the "Varyl" enlarger and allows the adjustment of the image to be carried out by direct observation on the sensitive enlarging paper **Fylva** **2. 8.0**

Slip-in metal masks for the "Varyl"

for the size 6×6 cm. ($2\frac{1}{4} \times 2\frac{1}{4}$ ins.) **Vappo** **0. 6.6**
" " " 4.5×6 cm. (vest pocket) **Vabba** **0. 6.6**
" " " 4×6.5 cm. (vest pocket film) **Vaffe** **0. 6.6**
" " " 4×4 cm. **Valli** **0. 6.6**
" " " 3×4 cm.**). **Vammo** **0. 6.6**
" " " 2.4×3.6 cm. ($1\frac{1}{2} \times 1$ ins.)**). **Vannu** **0. 6.6**

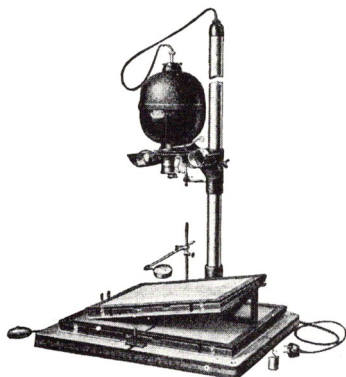
Hinged double glass plate, $7\frac{1}{2} \times 4$ ins. (10×19 cm.), hinged in book form, for the insertion of films and small glass plate negatives, as spare **Glanu** **0.12.6**

†) See footnote on p. 64.
*) When ordering please state the local supply voltage.
**) For the $1 \times 1\frac{1}{2}$ in. (24×36 mm.) and 3×4 cm. miniature sizes, results of quite the same very high quality as are given by the "Valoy" and "Vamax" special Leica enlargers (pp. 58, 68) cannot be obtained with the "Varyl" enlarger, for purely optical reasons. Hence for the small sizes we recommend the acquisition of a second special projector head.

Focusing magnifier No. 224 d , of 54 mm. (2 ¹ / ₈ ins.) diameter, with handle, for exact focusing of the enlarged image	Codeword	<i>£ s. d.</i>
	Nahne	1.17.6
Focusing magnifier , of 54 mm. (2 ¹ / ₈ ins.) diameter, with socket joint and adjustable arm, attachable to the baseboard of all the foregoing variable enlargers (see illustration on p. 58)	Vulpe	2.12.0
Steel tape measure , 5 ft. long, with cover and detachable weight, for screwing to the corner of the film stage of all the variable enlargers (see illustration on p. 66)	Rolba	0.12.6

Large "Vamax" Variable Enlarger

This apparatus is the largest of the variable models and is intended principally for the use of professional photographers and photographic dealers. It allows of the making of enlargements up to 20 × 16 ins.



(40 × 50 cm.).

The projector head for negatives up to 3 × 4 cm. corresponds to that of the "Valoy" apparatus, but is supplied with a screwed-in 5 cm. (2 ins.) F/3.5 lens with iris diaphragm and relative factors for exposure times. The new type of film guide permits very rapid and convenient working.

For the vest-pocket (4¹/₃ × 6 cm.) and 3¹/₂ × 2¹/₂ in. (6¹/₂ × 9 cm.) sizes further projector heads can be supplied (see pp. 71—72.)

The high-power 100 watt lamp is specially advisable for the "Vamax" enlarger.

Prices:

"Vamax" enlarger, consisting of: Large baseboard with 48 inch (1.20 m.) upright, 2 ins. (5 cm.) thick, projector head with large size lamp-house, 75 watt opal lamp in centring

mount, for direct connection to the main, electric flex with plug and press switch, new-type film guide with rising and dropping illuminating lens, film stage with Leica film slide and side troughs, steel tape measure, helical movement with screwed-in 5 cm. (2 inch) F/3.5 Leitz lens, iris diaphragm and relative factors for exposure times; with two clamping screws for fixing a printing board

Codeword *£ s. d.*
Vamax*) 19. 2.6

In addition: **English sizes.**

Printing board with hinged masking band

for size	3 1/2" × 2 1/2"	Vetwo	0.17.0
do. " "	4 1/4" × 3 1/4" (1/4 Plate)	Vefor	0.19.0
do. " "	5 1/2" × 3 1/2" (Post Card)	Vefiv	0.19.0
do. " "	6 1/2" × 4 3/4" (Half Plate)	Veder	1. 1.0
do. " "	8 1/2" × 6 1/2" (Whole Plate)	Vegit	2. 2.0
do. " "	10" × 8"	Vetin	2. 6.0
do. " "	15" × 12"	Velve	2.17.6
do. " "	20" × 16" with two clamping screws	Vegur	4. 3.0
Metal printing board Tilter (for correcting distorted lines)		Vekip	0. 4.6
		Varen*)	34.11.6

American sizes. Large variable enlarger as above **Vamax 19. 2.6**

Printing board with hinged masking band

for size	4 1/4" × 3 1/4" (1/4 Plate)	Vefor	0.19.0
do. " "	5 1/2" × 3 1/4"	Velan	0.19.0
do. " "	7" × 5"	Vesir	1. 1.0
do. " "	10" × 8"	Vetin	2. 6.0
do. " "	14" × 11"	Vebol	2.15.6
do. " "	20" × 16" with two clamping screws	Vegur	4. 3.0
Metal printing board Tilter		Vekip	0. 4.6
		Vason*)	31.10.6

Continental sizes. Large variable enlarger as above **Vamax 19. 2.6**

Printing board with hinged masking band

for size	6 1/2 × 9 cm.	Vesex	0.16.6
do. " "	9 × 14 cm.	Vecar	0.19.0
do. " "	13 × 18 cm.	Vedri	1. 1.0
do. " "	18 × 24 cm.	Velok	2. 1.6
do. " "	24 × 30 cm.	Venty	2. 8.0
do. " "	40 × 50 cm. with two clamping screws	Vegro	4. 3.0
Metal printing board Tilter		Vekip	0. 4.6
		Vatox*)	30.16.0

*) When ordering please state the local supply voltage.

Additional sizes		Codeword	£ s. d.
Printing board with hinged masking band			
for size	9 × 12 cm.	Venun	0.19.0
do. „ „	10 × 15 cm.	Vezen	1. 1.0
do. „ „	10.5 × 14.8 cm. (Universal post card size)	Vepos	1. 1.0
do. „ „	30 × 40 cm.	Vetru	3. 6.6
		Vadal	37. 3.6

“Felat” printing board with adjustable masking bands for sizes up to 13 × 18 cm. (see p. 61)			
		Felat	2.16.0
ditto, scaled in ins. up to 8 ¹ / ₂ × 6 ¹ / ₂ ins.		Felis	2.16.0
ditto for sizes up to 18 × 24 cm. (see p. 61)		Felom	3. 6.6
ditto, scaled in ins. up to 10 × 8 ins.		Feluk	3. 6.6
“Fetra” printing board for sizes up to 10 × 8 ins., see also p. 61			
		Fetra	1.17.6

Separate Projector Heads:

Projector head of the “Vamax” alone, as described on p. 69 under “Vamax”	Vecup*)	12.18.6
-------------------------------------------------------------------------------------------	----------------	----------------

High-power projector head similar to “Vecup” but with extra illuminating lens and 100 watt spherical lamp of 40 mm. (1³/₄ ins.) diameter for increased light intensity.	Vekux†)	14.13.6
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------	----------------

Film slide for 3 × 4 cm. size for the “Vecup” and “Vekux” projector heads	Vavir	0.12.6
ditto for the 4 × 4 cm. size**)	Vakes	0.12.6

Film slide with hinged double glass plate for single Leica negatives	Vazel	0. 8.6
---------------------------------------------------------------------------------------	--------------	---------------

For single 3 × 4 cm. and 4 × 4 cm. negatives:

Special negative mask 3 × 4 cm.	Vazup	0. 3.0
ditto 4 × 4 cm.	Vazis	0. 3.0

In addition:

Hinged double glass plate of size 6¹/₂ × 2 ins. (5 × 16 cm.)	Vazof	0. 9.6
-----------------------------------------------------------------------------------------------------	--------------	---------------

*) When ordering please state the local supply voltage.

**) The 4 × 4 cm. mask cuts off about 3 mm. in the corners.

†) The 100 watt lamp gives about double the intensity of light compared with the normal 75 watt lamp, but it requires a resistance or a transformer corresponding to the voltage of the available supply: prices for these are given on p. 74. Full particulars are contained in our catalogue of enlarging equipment.

Orange filter in swing mount for "Vecup" Codeword *l. s. d.*
 and "Vekux" **Fylto** **1.10.0**

In place of these projector heads the following projector heads are also supplied for larger sizes, these being all equipped with long holding arm for the thick upright of the "Vamax" enlarger:

Projector head for negatives up to vest-pocket ($4\frac{1}{2} \times 6$ cm.) size,

consisting of large lamp-house with 75 watt opal lamp in centring mount, for direct connection to the main, electric flex with plug and press switch, two illuminating lenses, film stage with novel film guide and side troughs, slip-in mask $4\frac{1}{2} \times 6$ cm. and double glass plate 10×19 cm. ($7\frac{1}{2} \times 4$ ins.); fixed F/3.5 Leitz lens of focal length 7.5 cm. (3 ins.) with helical movement, iris diaphragm and relative factors for exposure times **Vevax*)** **18.16.6**

High-power projector head similar to "Vevax", but with high-power 100 watt lamp **Vevil*)** **19.13.0**

Metal masks for the different negative sizes, to suit the "Vevax" and "Vevil" projector heads, see p. 65.

*) When ordering please state the local supply voltage.

†) The 100 watt lamp gives about double the intensity of light compared with the normal 75 watt lamp, but it requires a resistance or a transformer corresponding to the voltage of the available supply: prices for these are given on p. 74. Full particulars are contained in our catalogue of enlarging equipment.

Orange filter in swing mount for "Vevax" Codeword	£ s. d.
and "Vevil"	Flaus 2. 0.0

Projector head for negatives up to $3\frac{1}{2} \times 2\frac{1}{2}$ ins. ($6\frac{1}{2} \times 9$ cm.)

consisting of large size lamp-house with 75 watt opal lamp in centring mount, for direct connection to the main, electric flex with plug and press switch, two illuminating lenses, large film stage, metal mask for $3\frac{1}{2} \times 2\frac{1}{2}$ in. (6.5×9 cm.) negatives, double glass plate size $7\frac{1}{2} \times 4$ ins. (10×19 cm.) for films and glass negatives; fixed F/4 Leitz lens of focal length 9 cm. ($3\frac{1}{2}$ ins.) with helical movement, iris diaphragm and relative factors for exposure times

Vakop*) 21.18.6

Orange filter in slip-on holder for "Vakop"

Fylva 2. 8.0

N. B. If one of the foregoing projector heads is required, not for the "Vamax" enlarger, but to fit the earlier "Vitox" apparatus, the price is then increased by . . .

0. 6.6

Focusing magnifier No. 224d, of 54 mm. (2 ins.) diameter, with handle, for the exact focusing of the enlarged image. . .

Nahne 1.17.6

Focusing magnifier, of 54 mm. (2 ins.) diameter, with socket joint and adjustable arm attachable to the baseboard of the "Vamax" enlarger

Vulvi 2.12.0

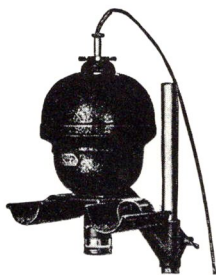
Opal lamp, 75 watts, as spare

Flabu*) (A) 0. 3.4

100 watt lamp, as spare

Flako (A)

*) When ordering please state the local supply voltage.



High-power 100 watt lamp for an existing Leitz enlarger:

When one of the earlier "Files", "Filoy" or "Fylab" enlargers (or else "Vitox" or "Vitas" apparatus) is already available, the high-power illuminating system, which in this case gives about a fourfold increase in lighting intensity, can be supplied as an addition in the following form:

Upper lamp-house (larger hemisphere) with intermediate ring for placing on the existing lower lamp-house, **100 watt spherical lamp***, of diameter 40 mm. ($1\frac{3}{4}$ ins.), with electric flex, plug and press switch, additional illuminating lens in holder for placing over the condenser lens of the lower lamp-house **Varku*) 4. 7.0**

With the earlier "Filyt" enlarger, the 75 watt lamp can be changed without any trouble for the 100 watt lamp:

100 watt lamp **Flako*) (A)**

*) The 100 watt lamp requires the inclusion of one of the following resistances or transformers; prices for these are given on the following page. Further particulars are contained in our catalogue of enlarging equipment.

**Resistances and Transformers
for the spherical 100 watt lamp.**

Codeword *£ s. d.*

**For 110—130 volt direct and alternating
current**

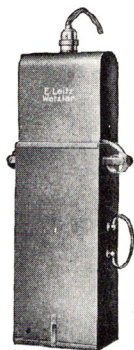
50-ohm regulating resistance with voltmeter	
0—130 volts	Regir (H) 2.17.0
5 ft. electric cable with plug terminals . . .	Kablo (H) 0. 9.6
	<u>Regno (H) 3. 6.6</u>

For 200—240 volt direct current

50-ohm regulating resistance with voltmeter	
70—230 volts	Regol (H) 3.11.6
Additional resistance (about 110 ohms) . .	Regyd (H) 0.17.6
2 cables, each 5 ft. long, with plug terminals	Kabbi (H) 0.19.0
	<u>Reglu (H) 5. 8.0</u>

For 200—240 volt alternating current

50-ohm regulating resistance with voltmeter	
0—130 volts	Regir (H) 2.17.0
Type ETL 2/3 transformer — 220 volts .	Refug (H) 2.15.6
2 cables, each 5 ft. long with plug terminals	Kabbi (H) 0.19.0
	<u>Reget (H) 6.11.6</u>



Simple Enlarging Apparatus in Box Form

For those amateurs who wish to make enlargements of one definite size only, a simple enlarging apparatus of box form type, having a fixed-focus lens, is available.

Simple enlarger for daylight , with lens of 6.5 cm. focal length, fixed focus for enlarging Leica film negatives 24×36 mm. to 6×9 cm. ($3\frac{1}{2} \times 2\frac{1}{2}$ in.) size	Codeword	<i>£ s. d.</i>
	Flein	3.14.6
Enlarger as above, for 6×9 cm. ($3\frac{1}{2} \times 2\frac{1}{2}$ in.) prints, but with 75 watt opal lamp*) in detachable metal casing, including electric flex and plug	Fleos*)	5. 3.6
75 watt opal lamp as spare	Flear*) (A)	0. 3.4
Simple enlarger for daylight , with lens of 6.5 cm. focal length, fixed focus for enlarging 24×36 mm. Leica film negatives to postcard size 9×14 cm. ($5\frac{1}{2} \times 3\frac{1}{2}$ ins.) .	Filar	4.13.0
Enlarger as above, for postcard-size prints 9×14 cm., but with 100 watt opal lamp*) in detachable metal casing, including electric flex and plug	Filix*)	6. 4.0
100 watt opal lamp as spare	Flami*) (A)	

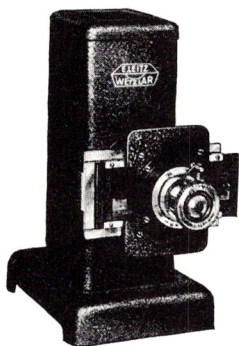
*) This lamp is connected directly to the electric circuit, the voltage of which should be stated when ordering.



Leitz Small Projectors

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A simple apparatus
of good performance.

Leitz "Standard" Small Projector

for use with the Leica lenses
of 5 cm. focus*).

This projector is especially designed to meet the needs of those Leica enthusiasts who are satisfied with a simple apparatus for the projection of their pictures before a **small audience**. It is arranged for use with the Leica lenses of 5 cm. focus exclusively. The high quality of the lens combined with a three-lens condenser and a 100 watt lamp affords a bright and brilliant picture, free from colour defects.

The size of the screen image attainable is about $7\frac{1}{2} \times 5$ ft. at a projection distance of about 10 ft.

*) The projector is also supplied with a built-in projection lens of 85 mm. focal length. Price £ 4.17.0 without slide. Further details are given in special list H. 7321.

Prices:**"Standard" Small Projector,**

consisting of:

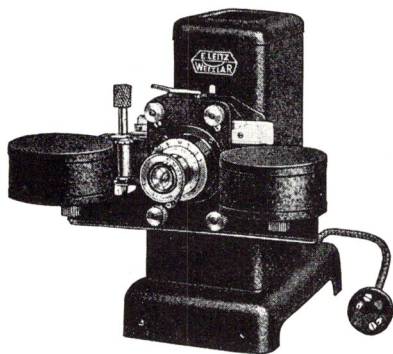
Solid lamp-house with detachable cover, 100 watt tubular lamp with screw-in socket, for direct connection, simplified centring of the lamp, short connecting flex (about 12 ins.) with plug, three-lens condenser, designed for the use of the Leica lenses of 5 cm. focus exclusively, rotating slide stage with slide changer for 5×5 cm. Leica glass slides and lens changing flange	Uklon*)	5. 3.0
Spare lamp , 100 watt tubular lamp with screw-in socket, for direct connection . . .	Ulava*) (A)	0.14.6
Flex extension , 12 ft. long, with connection and plug	Ulnur (H)	0. 8.6
Slide Changer for Leica glass slides 3.5×12 cm. ($4\frac{3}{4} \times 1\frac{1}{2}$ ins.)	Udalu	0. 4.6
Double Slide Changer for 5×5 cm. (2×2 in.) Leica glass slides	Uklib	0.10.6
Film slide with semi-automatic movement and film gate 24×36 mm. ($1\frac{1}{2} \times 1$ in.) with plane glass plates	Uduhs	1. 9.0
ditto with film gate 18×24 mm. ($1 \times \frac{3}{4}$ in.)	Ubepu	1. 9.0
Lower plane glass plate alone with aperture 18×24 mm., interchangeable with the normal glass plate of the "Uduhs" film slide	Ubeol	0. 7.6

*) When ordering please state the local supply voltage.

Leitz Small Projector Model VIII a

represents the ideal projector for the ambitious Leica enthusiast. It is the first projector to be arranged for the use of all Leica lenses (with the exception of the 3.5 cm. "Elmar" wide-angle lens).

The high quality of the Leica lenses, combined with a three-lens condenser and a 100 watt lamp with reflector, gives a very bright and brilliant image, free from colour defects.



**Small Projector
Model VIII a
"Ubela"
Equipment
with semi-automatic
film movement,
but also suitable for glass
slides (see p. 82).**

The distinguishing feature of this apparatus is the completely novel, semi-automatic film movement. The positive film runs over a sprocket, the teeth of which engage in the perforations, and is held flat between two glass plates in the film gate. The film is moved on by turning the milled spindle seen in the above illustration. A special mechanism which is thus brought into action raises the glass cover plate while the film moves on and only lowers it again when the image has reached its proper position in the film gate of the projector. When this happens, the movement of the film is automatically stopped, so that the possibility of scratching of the film by the glass plates is eliminated.

The insertion of the film is a moment's work only, since the winding of the film on special film spools—which is always somewhat awkward and tedious—is completely eliminated.

Prices:

Codeword £ s. d.

Equipment: solid rectangular **lamp-house** with good ventilation, with top detachable for the easier removal of the lamp, centred **100 watt lamp** for cine fitting, for direct connection, short **flex and plug**, reflector, three-lens condenser composed of two permanently mounted lenses of diameter 52.5 mm. and one interchangeable condenser lens which must be changed to suit the focal length of the lens (see also below), removable heat protecting screen and revolving front

when ordered separately **Udimo*) 6.16.6**
with added codeword for the interchangeable condenser.

In addition

Leica film attachment with socket with thread for the interchangeable **Leica lenses**, film slide with semi-automatic film movement and two glass plates to hold the film flat, as well as two detachable film drums for film lengths up to 13 ft.

when ordered separately **Ukedu 2.18.0**

“Ubela” Small projector complete

for use with the Leica lenses of 5 cm. focus **Ubeladoko*) 9.14.6**
for use with the Leica “Hektor” $f = 7.3$ cm. and “Elmar” $f = 9$ cm. lenses **Ubeladaki*) 9.14.6**
for use with the Leica lenses of 10.5 and 13.5 cm. focus **Ubelabiku*) 9.14.6**

Separate Interchangeable Condensers

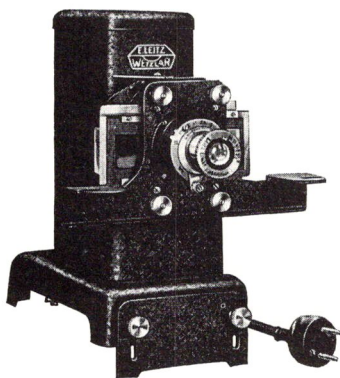
for completing the Equipment:

Interchangeable Condenser engraved “5”
for Leica lenses of 5 cm. focus **Udoko 0.12.6**

Interchangeable Condenser, engraved “7,3—8—9” for **Leica lenses** “Hektor” $F/1.9$, 7.3 cm. focus and “Elmar” 9 cm. focus (as well as the “Milar” projection lens, $f = 8$ cm.) **Udaki 0.12.6**

Interchangeable Condenser, engraved “10,5—12—13,5” for Leica lenses of 10.5 cm. and 13.5 cm. focus (as well as the “Dimax” projection lens, $f = 12$ cm.) **Ubiku 0.12.6**

*) When ordering please state the local supply voltage.



The "Ubel" small projector can also be arranged for the projection of Leica glass slides by replacing the film slide by a corresponding slide changer: it is convenient to remove the two film drums at the same time (see illustration).

Slide changer for glass lantern slides interchangeable with the normal film slide:

	Codeword	<i>£ s. d.</i>
Slide Changer with circular opening of 43 mm. diameter for 5 × 5 cm. (2 × 2 inch) Leica glass slides	Udapa	0. 4.6
Double Slide Changer for 5 × 5 cm. (2 × 2 inch) Leica glass slides	Uklib	0.10.6
Slide Changer with film gate 24 × 36 mm. for Leica diapositives mounted between 3.5 × 12 cm. (4 ³ / ₄ × 1 ¹ / ₂ in.) glass plates . . .	Udalu	0. 4.6
Slide Changer with circular opening of 50 mm. (2 inches) diameter for 3 × 4 cm. diapositives mounted between 5 × 5 cm. glass plates	Udyge	0. 4.6

For Standard

Codeword *£ s. d.*

cine film strips 18×24 mm.*)

the "Ubela" Small Projector can be equipped as follows:

Film Slide with semi-automatic film movement and film gate 18×24 mm. (1×³/₄ ins.), interchangeable with the ordinary film slide **Ubepu 1. 9.0**

Lower plane glass plate alone, with aperture 18×24 mm., interchangeable with the ordinary glass plate of the Leica film slide **Ubeol 0. 7.6**

Further accessories:

Electric flex, 12 ft. long, with connection and plug, as extension **Ulnur (H) 0. 8.6**

100 watt cine socket lamp for direct connection, as spare **Ubemi**) (A) 0.17.6**

Film Slide with semi-automatic film movement, as contained in the Leica film attachment **Uduhs 1. 9.0**

Metal tilting plate with two milled nuts for tilting the Small Projector **Usnal 0. 5.6**

Carrying case of calico-covered ply-wood, to hold the "Ubela" Small Projector, a spare lamp and one Leica lens as selected . . . **Ukams 3. 2.0**

Special projection lenses:

Special projection lenses can be used with the Model VIIIa Small Projector, as well as the Leica lenses. For this purpose there is provided a special receiving socket which screws into the flange for the Leica lenses and into which the projection lenses are fitted.

*) Special projectors intended solely for the exhibition of educational films of standard cine size 1×³/₄ inch (18×24 mm.) are also supplied. Special pamphlet dealing with these free on request.

**) When ordering please state the local supply voltage.

“Milar” lens of focal length 8 cm., for Codeword £ s. d.
screen distances of 9 to 21 ft. **Udaob 3. 2.0**

“Dimax” lens of focal length 12 cm., for
screen distances of 12 to 30 ft. **Upeob 4. 3.0**

Receiving Socket for the projection lenses,
for screwing into the Leica lens attachments **Udozu 0.16.6**

The **“Udaki”** and **“Ubiku”** interchangeable condensers are provided for the projection lenses (see p. 81).

With 30 volt 100 watt lamp:

If the Small Projector is desired with a 30 volt, 100 watt lamp with cine socket, which gives a somewhat greater intensity of lighting on account of the point-like light source, this should be specially stated in the order†). This involves no alteration in the price of the apparatus, but it is necessary to obtain a resistance or a transformer.

Resistance for 110 volt circuit, D. C. or A. C. **Renni (H) 1. 4.0**

Resistance for 220 volt circuit, D. C. or A. C. **Renia (H) 1.12.0**

Combined resistance for 110 and 220 volts **Renax (H) 1.15.0**

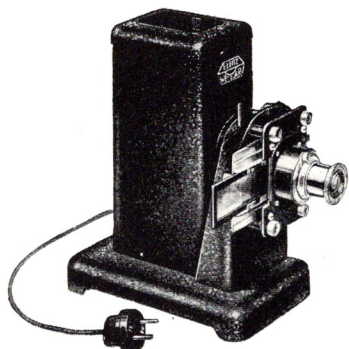
Combined transformer for 110 and 220 volts A. C. . . . **Renum (H) 2.17.0**

30 volt, 100 watt cine socket lamp, as spare **Ubeaf (A) 0.16.6**

Prices of other resistances for intermediate voltages as well as variable resistances on request.

Flex extension, 12 ft. long with plug and special connection for connecting to a resistance (only suitable for the apparatus with low-voltage lamp) **Progban (H) 0. 6.0**

†) Additional codeword for telegraphic orders: **Ulwak**, e. g. **“Ubeladoko”** small projector with 30 volt lamp: **“Ubeladoko Ulwak”**. In order to avoid errors we ask that the additional codeword should always be set behind the corresponding codeword for the projector.



Leitz Small Projector, Model VIII a

“Udano” equipment for 5 × 5 cm. Leica glass slides.

The “Udano” Small Projector corresponds exactly in its technical details to the “Ubela” equipment described on the foregoing pages, but in place of the film attachment it is fitted with a lantern slide attachment. This consists of a picture stage with fitting for the Leica lenses and slide changer for 5 × 5 cm. (2 × 2 inch) Leica glass slides (see illustration). The slide attachment is removable and interchangeable with the film attachment of the “Ubela” projector.

To special order the projector can also be supplied with a slide changer for Leica glass slides 3.5 × 12 cm. ($4\frac{3}{4} \times 1\frac{1}{2}$ ins.) or for 3 × 4 cm. slides mounted between 5 × 5 cm. glass plates.

Prices:

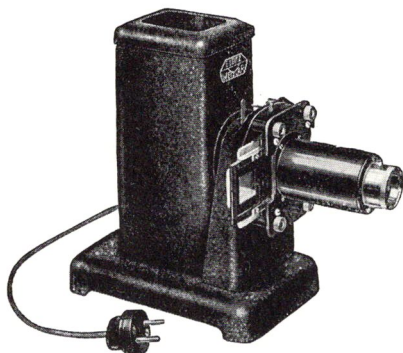
Codeword £ s. d.

Equipment:**Lamp-house**, see description on p. 81when ordered separately **Udimo*)** 6.16.6

with added codeword for the interchangeable condenser

Lantern Slide attachment with socket with thread for receiving the interchangeable Leica lenses and slide changer for Leica glass slides 5 × 5 cm. when ordered separately**Ubafe** 0.16.6**Model VIIIa Small Projector, "Udano"**
equipment, for 5 × 5 cm. Leica glass slides,
completeor use with the Leica lenses of 5 cm. focus **Udanodoko*)** 7.13.0for use with the Leica "Hektor" $f = 7.3$ cm. and "Elmar"
 $f = 9$ cm. Leica lenses **Udanodaki*)** 7.13.0for use with the Leica lenses of 10.5 and 13.5 cm. focus **Udanobiku*)** 7.13.0**"Ulnur" flex extension****Interchangeable condensers** as extras**Spare Lamp****Extra slide changers****Tilting plate****Special Projection Lenses****30 volt lamp**} as listed on
pp. 81—84.**Carrying case** of calico-covered ply-wood, to hold the "Udano" projector, a spare lamp and one Leica lens as selected**Ustan** 2.16.0

*) When ordering please state the local supply voltage.



**Leitz
Small Projector
Model VIIIb**

with interchangeable
Projection Lenses.

The VIIIb small projector differs from the VIIIA projector only in that it is not designed for use with the interchangeable Leica lenses. Consequently it is only to be considered in cases in which for special reasons the possible use of the Leica lenses is ruled out from the start. Otherwise the model VIIIb projector possesses all the properties and scope of the model VIIIA projector.

**Prices: Small Projector Model VIIIb,
"Ukaby" equipment**

Codeword £ s. d.

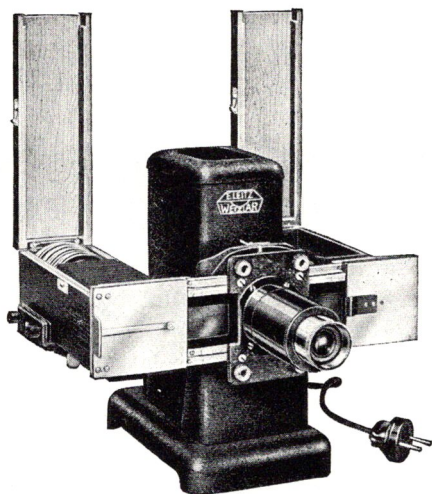
for Leica film strips, with semi-automatic film movement, consisting of lamp-house and film attachment as described overleaf, complete with "Milar" lens, 8 cm. focus, for screen distances from 9 to 21 ft. . . . Ukaby*) 13. 2.6

The same projector, but with "Dimax" lens, 12 cm. focus, for distances from 12 to 30 ft. **Ukabymax*) 14. 3.6**

*) When ordering please state the local supply voltage.

Small Projector, Model VIIIb, "Ubodi" equipment for 5 × 5 cm. Leica glass slides,		Codeword	£ s. d.
consisting of lamp-house and lantern slide attachment as described below, complete with "Milar" lens, 8 cm. focus, for distances from 9 to 21 ft.		Ubodi*)	11. 1.6
The same projector, but with "Dimax" lens, 12 cm. focus, for distances from 12 to 30 ft.		Ubodimax*)	12. 2.0
Lamp-house of the "Ukaby" and "Ubodi" projectors, see description on p. 81		when ordered separately Udimo*)	6.16.6
		with added codeword of the interchangeable condenser	
Film attachment of the "Ukaby" projector with film slide for semi-automatic film movement, film gate 24 × 36 mm., two detachable film drums for film lengths up to 13 ft. and interchangeable "Milar" projection lens, 8 cm. focus		when ordered separately Ukeso	6. 6.6
The same film attachment, but of the "Ukabymax" projector, with "Dimax" lens 12 cm. focus		Ukesomax	7. 7.0
Lantern Slide attachment of the "Ubodi" projector with slide changer for 5 × 5 cm. (2 × 2 inch) Leica glass slides and interchangeable projection lens "Milar", 8 cm focus		when ordered separately Ubaho	4. 5.0
The same lantern slide attachment, but of the "Ubodimax" projector with "Dimax" lens, 12 cm. focus		when ordered separately Ubahomax	5. 5.6
"Milar" Projection Lens, 8 cm. focus, interchangeable, as additional equipment .		Udaob	3. 2.0
"Dimax" Projection Lens, 12 cm. focus, interchangeable, as additional equipment .		Upeob	4. 3.0
Other accessories, such as			
Flex extension "Ulnur"	} see pp. 81—84.		
Interchangeable condensers as extras			
Extra slide changers, spare lamp			
Tilting plate, 30 volt lamp			

*) When ordering please state the local supply voltage.



“Wedya” Slide Changing Magazine

This changing magazine is designed for the very rapid projection of Leica glass slides measuring 5×5 cm. over all in large numbers. It is intended above all for the travelling lecturer, for whom it is necessary to be able to show his slides in proper order and in rapid succession, without a hitch.

Price:

Slide changing magazine, consisting of:

Two wooden containers holding about 55—60
 5×5 cm. Leica glass slides, bridge piece,
 and a special changing slide

Codeword £ s. d.

Wedya **8.16.0**

Carrying case of calico-covered ply-wood,
 to hold the VIIIa or VIIIb Small Projector
 with “Wedya” slide changing magazine and
 one spare lamp

Ukyla **4. 3.0**

Small Projector, Model VIIIi

with 250 watt lamp

Small Projector, Model VIIIk

with 400 watt lamp

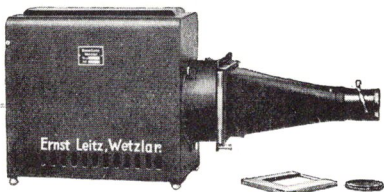
Equipment similar to Models VIIIa and VIIIb, i. e.

Attachments for Leica glass slides and film strips

Semi-automatic film movement

Changing flange for the Leica lenses or special projection lenses

Further particulars on request.



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The universal lantern projector for maximum performance

Attachments for Leica glass slides and film strips for screen distances from 10 to 80 feet

Further attachments for large-size projection, micro and vertical projection, scientific demonstrations and other special purposes.

Write for special literature!

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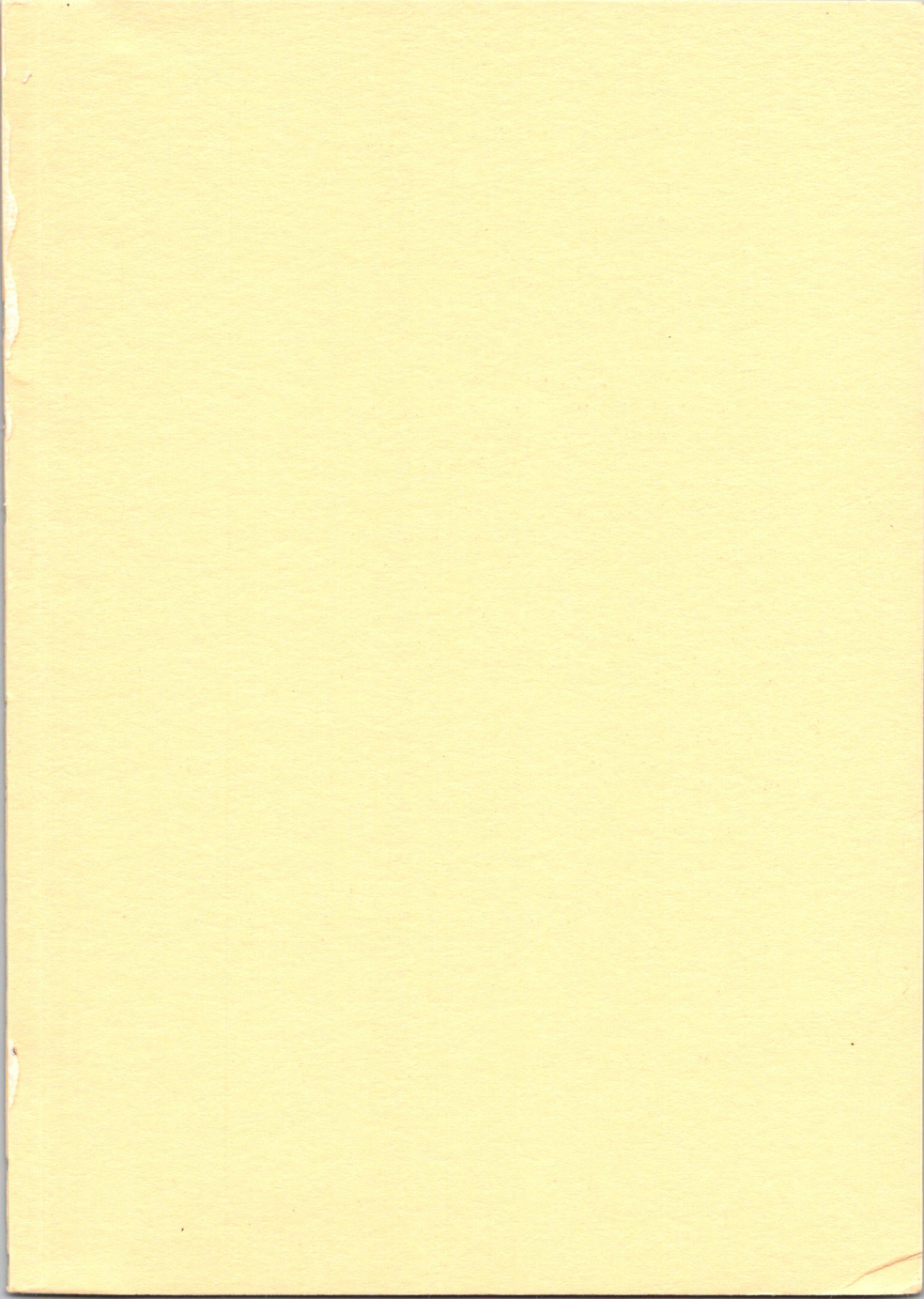
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October 1933 / 8000£
List Photo No.2K, en.

Reprinted in England by
Design & Print, Shoreham-by-Sea