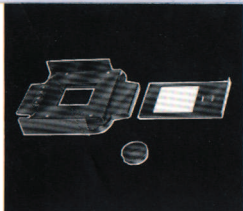




Special Accessories to OPEMUS 5
Enlarging Apparatus:

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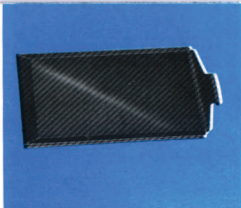
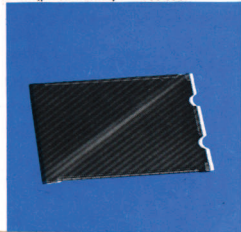


**OPEMUS III Reproducing Equipment —
Cat. No. 784 250 —
Branch No 392 812 520 061**

Designed for photographing of patterns or various objects placed on to the baseboard. It can be inserted into the apparatus instead of the negatives carrier. Photographic plates or sheet films of 6.5×9 cm in size, placed into the magazines, are employed for photographing.

**Magazine Inset — Cat No. 736 070 —
Branch No. 392 812 590 071**

A metal insert for sheet films 6.5×9 cm, to be placed into the 6.5×9 cm magazine (plate holder) — 736 060.



**Magazine 6.5×9 cm —
Cat. No. 736060 —
Branch No. 392 812 590 061**

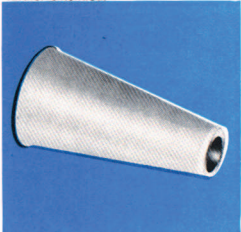
This is a metal magazine for photographic plates of 6.5×9 cm. The magazines are placed into the Opemus III reproducing equipment. —

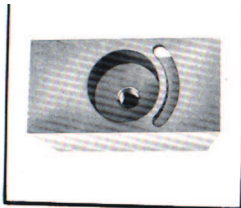
Cat. No. 784 250.

OPEMUS III Macro-Adapter —

**Cat. No. 784 270 —
Branch No. 392 812 330 041**

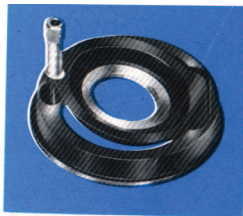
This accessory item is used at photographing of small objects or reproducing of small-sized pattern. By application of this adapter, the lens extension is still further extended.





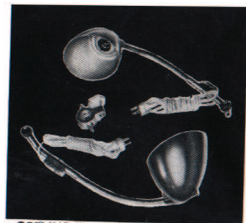
Stand Reduction Unit —
Cat. No. 784 280 —
Branch No. 392 812 590 091

With the aid of the above — mentioned unit, the apparatus head can be clamped to a photographic stand, (tripod).



Restitition Ring — Cat. No. 782 280 —
Branch No. 392 812 310 261

This is an auxiliary item for carrying out true restitution of the image.



OPEMUS Illuminator —
Cat. No. 784 110 —
Branch No. 392 812 540 021

This is a useful supplementary accessory item of the apparatus serving for illumination of photographic pictures placed on to the baseboard.

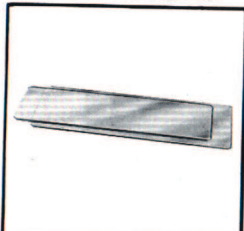
Foot Switch — Cat. No. 789 032 —
Branch No. 392 812 890 035

With the aid of this foot switch, the enlarger lamps can be controlled by depressing a pedal.



Glasses for Individual Negatives —
Cat. No. 781 170 —
Branch No. 392 923 900 111

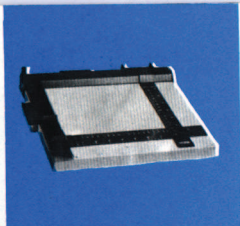
This is a useful aid allowing easy manipulation with the negative in the carrier when handling a film band cut into the individual frames (negatives).



Reproducing (Copying) Arm —
Cat. No. 784 240 —
Branch No. 392 812 550 061

This attachment is designed for fixing a photographic or a cine camera on to the enlarger stand when reproducing, filming of film captions, etc.



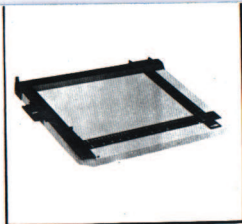
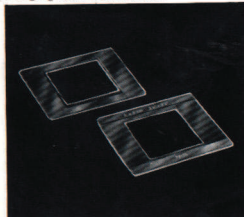


Masking Equipment 18×24 —
Cat. No. 783 082 —
Branch No. 392 812 720 064

This device is intended for easy fixing of the sensitive material of up to 18×24 cm in size and for simultaneous framing of the images being enlarged with white border. The width of the white border is adjustable.

Inserts 6×6 without glasses —
Cat. No. 781 250 —
Branch No. 392 812 430 061

Metal inserts to be placed into the negative carrier in place of glasses when enlarging from 60mm films.

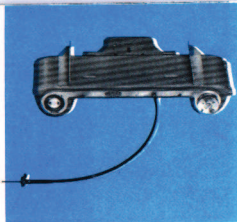
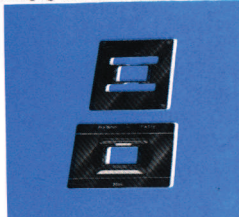


Masking Equipment 30×40 —
Cat. No. 783 072 —
Branch No. 392 812 720 054

This masking equipment is intended for easy fastening of the sensitive photographic material of up to 30×40 cm in size and for providing the enlargements with white border, the width of which is variable.

Inserts 6×6/24×36 —
Cat. No. 781 140 —
Branch No. 392 812 430 021

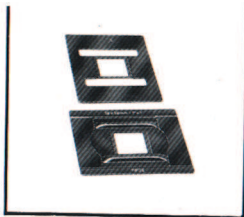
Metal inserts to be placed into the negative carrier in place of glasses when enlarging from 35mm films.



Reproducing Equipment 35mm —
Cat. No. 784 140 —
Branch No. 392 812 520 031

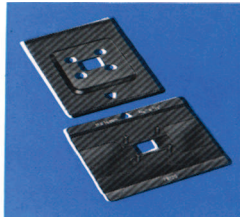
This equipment allows making of reproductions, macrophotographs, etc., on a 35 mm cine film, wound in magazines (film holders) or on special reels taking 5 metres of film (each). The picture size is 24×36 mm. The size of the pattern is defined by luminous marks, when focusing with the slit-line focusing system.





Inserts 6x6 / INSTAMATIC —
Cat. No. 781 290 —
Branch No. 392 812 430 091

Metal inserts to be placed into the negatives carrier instead of glasses when enlarging from KODAK - Instamatic films.



Inserts 6x6/11x14 —
Cat. No. 781 200 —
Branch No. 392 812 430 031

Metal inserts placed into the negatives carrier in place of glasses when enlarging from 16mm films; the negative size 11x14 mm.

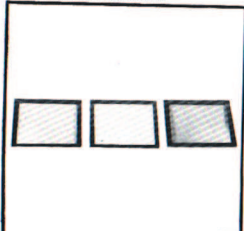


MEOCHROM Colour Head —
Cat. No. 785 130 —
Branch No. 392 812 620 081

The Meochrom colour head replaces a set of 33 subtractive filters. It constitutes a source of colour light for enlarging by subtractive method

Additive Correction Interference Filters — Cat. No. 785 180 —
Branch No. 392 812 610 081

The set of three subtractive filters is employed if the filtration grade "150" is found to be insufficient.



Powering Transformer —
Cat. No. 786 040 —
Branch No. 392 812 890 121

This small-sized transformer is intended for powering of the 12 V, 100 W halogen lamp, employed in the Meochrom colour head.



Inserts 6x6/13x17 - Cat. No. 781 440 -
Branch No. 392 922 901 401

Metal inserts placed into the negatives carrier in place of glasses when enlarging from 16 mm films; the negative size 13x17 mm — POCKET.



MEOPTA Lenses and Supplements to Lenses Intended for Enlarging Instruments



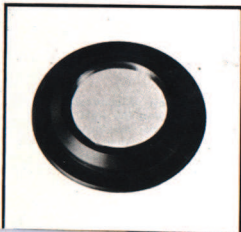
ANARET 4.5/30 mm Lens - No. 703 440 - Branch No. 392 812 110 271
Intended for enlarging of negatives of 11×16 mm and 13×17 mm in size. Mounting thread... M 23.5×0.5.



ANARET 4.5/50 mm Lens - Cat. 703 412 - Branch No. 392 812 110 232
This is an enlarging lens for enlarging of negatives made on a 35mm film. Mounting thread... M 23.5×0.5.

M 39×1 Ring - Cat. No. 782 530 - Branch No. 392 927 900 101

This is a lens carrier with an M 39×1 thread for MEOPTA enlarging instruments.



Meogon 5.6/50 mm Lens - No. 703 470 - Branch No. 392 812 110 311

has a symmetrical optical construction and is composed of six elements in four groups. It is determined for advanced amateurs and photo laboratories and enables enlarging from 24×36 negatives. Its attaching thread is M39×1Sh4.



Meogon 5.6/60 mm Lens - Cat. 703 460 - Branch No. 392 812 110 291

has a symmetrical optical construction and its composed of six elements in four groups. It is determined for advanced amateurs and photo laboratories and enables enlarging from 24×36 negatives. Its attaching thread is M39×1Sh4.



Description of Instrument

The OPEMUS 5 — an amateur enlarger designed for the enlarging of photographic pictures from negatives made on 60 and 40 mm roll films of 6×6 cm or smaller in size, or on 35 mm and/or 70 mm cine films. The Opemus 5 can be used for making black-and-source of light is an opal (frosted) lamp for white as well as colour enlargements. The enlarging instruments, of 150 W power input; the bulb is up to 70 mm in diameter and is provided with the E 27 base (112 up to 121 mm long).

High-performance enlarging lenses are supplied for the Opemus enlarger by the MEOPTA Works.

The lens of 80 mm focal distance ($F = 80$ mm) is intended for enlarging from negatives of 6×6 cm in size, while the lens of $F = 50$ mm is designed for enlarging from negatives of 24×36 mm in size.

A number of further efficient lenses is supplied by MEOPTA to the enlarging instruments; these lenses are applied for especially exacting work and/or for enlarging negatives of special sizes.

With the lens of $F = 80$ mm focal distance, the maximum linear magnification of about 6.2× is attainable on the baseboard; also, if required, a maximum linear reduction of approx. 1.25× can be obtained.

With the lens of $F = 50$ mm, a maximum magnification of approx. 11× and a reduction of about 1.4× are attainable analogically.

The Opemus 5 together with its stand can be turned round the screw in the baseboard, whereby a still higher grade of magnification can be obtained by projection outside the baseboard, e. eg., on to the floor. By turning the apparatus on the stand to its horizontal position, magnifications of arbitrarily large dimensions can be made by projection upon a vertical screen, for instance, against a wall. Partial restitution (pseudo-restitution) of the

image can be also be effected with the instrument, i. e., the converging lines on the negative, frequently arising when making photographs of architectural constructions, etc., can be corrected, i.e., compensated.

The OPEMUS 5 is adjustable on its stand and the image can be focused by a mechanism which does not allow any idle run. The baseboard is 390×560 mm in size. The supply cable (i.e., the connecting cord) is 2.2 m long and is provided with a feed-through switch and a plug.

The Opemus 5 is equipped with a metal negatives carrier fitted with a slit-line focusing system, two glasses and two adjustable stops for guiding of the film band. The negatives can be placed into the carrier either cut into the individual frames (pictures) or parts or in bands. The loose ends of the band have to be placed into specially shaped carriers in which the film band cannot suffer any damage. The masks for masking off the undesirable light are located direct in the carrier and can be shifted independently of each other. The size of the opening is arbitrarily adjustable without taking the carrier out of the instruments. The film band in the carrier is nipped firmly with two glasses by the action of springs. On lifting the upper part of the carrier, the film band can be shifted to and fro. The oblique rod of the stand is provided with a graduated scale for approximate ascertaining or adjusting of the linear magnification and for computing the exposure time when the magnification grade is being changed.

The condenser lens of the instrument is composed of two equal plano-convex lenses, set into a metal mount. The ground glass (focusing screen) can be inserted into the drawer for correction filters if it is required to work with the light which is a little diffused.

By employing special accessories which are available against a special order, the Opemus 5 enlarger becomes a universal instrument that can be employed for photographing, reproducing and other purposes.

A colour head with its own light source can be employed in conjunction with the Opemus 5 enlarger. The colour head substantially facilitates work when making enlargements on colour material. It can replace a set of 33 subtractive filters (7.5×7.5 cm or 7×7 cm). The colour head permits accurate, repeatable filtration.

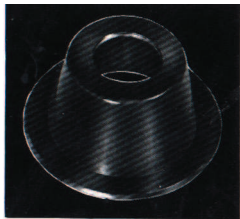
Dimensions and weight of instrument:

Weight	9.3 kg
Maximum height (working height)	995 mm
Minimum height (storing height)	755 mm
Width	390 mm
Depth	615 mm

The Opemus 5 enlarger is produced in two design variants:

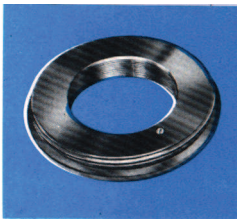
- The Opemus 5 provided with the colour head,
Branch No. 392 211 400 604,
- The Opemus 5 provided with an opal lamp of 150 W,
Branch No. 392 211 400 602.

The logo for MEOPTA, featuring the brand name in a stylized, lowercase font within a dark, rounded rectangular border.



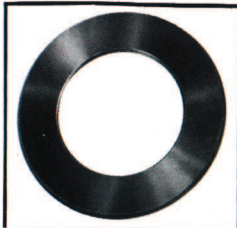
Recessed Ring F = 30 mm —
Cat. No. 782 510 —
Branch No. 392 025 304 411
The ring applied for fastening the 4.5/30mm Anaret lens in the MEOPTA enlarging instruments.

M 39×1 Ring — Cat. No. 782 490 —
Branch No. 392 812 310 321
This is a lens carrier with an M 39×1 thread for MEOPTA enlarging instruments.



Threaded Reduction Adapter
M 39×1/M 23.5×0.5 —
Cat. No. 849 310 —
Branch No. 392 812 310 311
For screwing on to the lenses of the MEOPTA trade mark, for application in the instruments having an M 39×1 mounting thread.

M 42×1 Ring — Cat. No. 782 470 —
Branch No. 392 812 310 361
This is a lens carrier having an M 42×1 thread, for use with the MEOPTA enlargers.



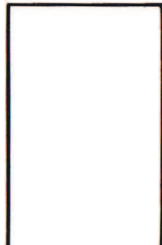
Meogon 5.6/80 mm Lens —
Cat. No. 703 450 —
Branch No. 392 812 110 302
has an asymmetrical optical construction and is composed of six elements in four groups. It is determined for advanced amateurs and photo laboratories and enables enlarging from 6×6 cm negatives. Its attaching thread is M39×1Sh4.

Note:

In the interest of continuous development we reserve the right to carry out alterations and modifications without notice. In consequence, the actual supplied apparatus may show minor deviations from the text and pictorial part of the present manual.



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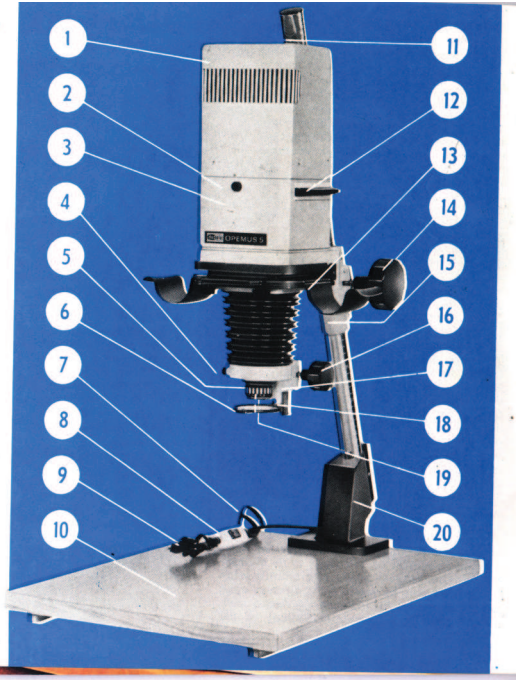
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Printed in Czechoslovakia

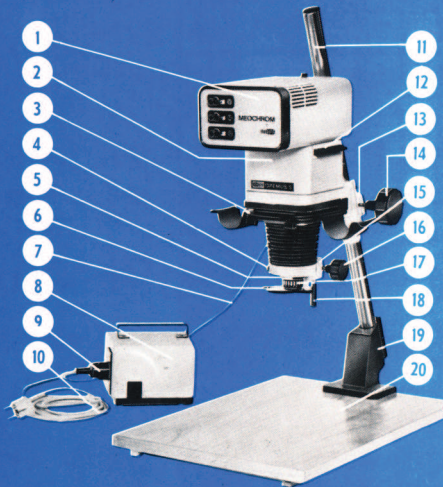
KEY to Fig. 1.

1. Lamphouse
2. Screws of lamphouse
3. Condenser box
4. Turnknob
5. Lens holder
6. Filter
7. Connecting cord
8. Feed-through switch
9. Connecting cord plug
10. Baseboard
11. Oblique rod
12. Drawer for correction filters
13. Negatives carrier
14. Sliding turnknob
15. Sliding mount
16. Focusing turnknob
17. Lens carrier
18. Focusing rod
19. Lens
20. Foot (base)



KEY to Fig. II.

1. Colour head
2. Condenser box
3. Negative carrier
4. Turnknob
5. Lens holder
6. Filter
7. Connecting cord
8. Transformer
9. Connecting cord plug
10. Flexible cord
11. Oblique rod
12. Drawer for 100% filters
13. Sliding mount
14. Sliding turnknob
15. Lens carrier
16. Focusing turnknob
17. Lens
18. Focusing rod
19. Foot (Base)
20. Baseboard



Instructions for Use

The Opemus 5 enlarger is supplied from the MEOPTA Works with the lamphouse (Fig. I-1) or with the colour head (Fig. II-1). The lens carrier is mounted in and locked in position with the turnknob (Fig. I-4).

The 4.5/80 lens must be screwed into the carrier in the way shown in Fig. III. The 4.5/50 lens must be screwed into the reversed carrier, as shown in Fig. IV.

1. Light Source - Lamp

An opal bulb for enlargers of up to 150 W power input is applied as the light source; the maximum diameter of the bulb is 70 mm; the bulb is provided with an E 27 base. The bulb should not bear any inscriptions on the top, nor should it show any glass unevenness.

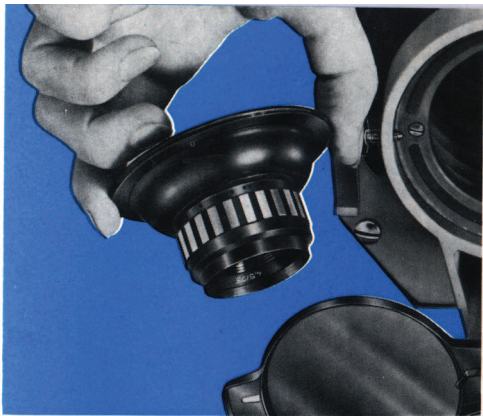
2. Insertion and Replacement of Lamp

From the production works, the enlarger is supplied without the lamp. **The lamp may be inserted into the apparatus only in the latter is disconnected from the el. mains.**

Screw out the two screws (Fig. VIII-1) and take out the lamphouse by lifting upwards (Fig. V-1). After having been screwed into the socket (Fig. V-2) the lamp takes up a central position (Fig. V-2) the lamp takes up a central position.

3. Connecting Enlarger to El. Mains

Insert that plug of the connecting cord (Fig. I-9) into the socket of the el. mains; the lamp

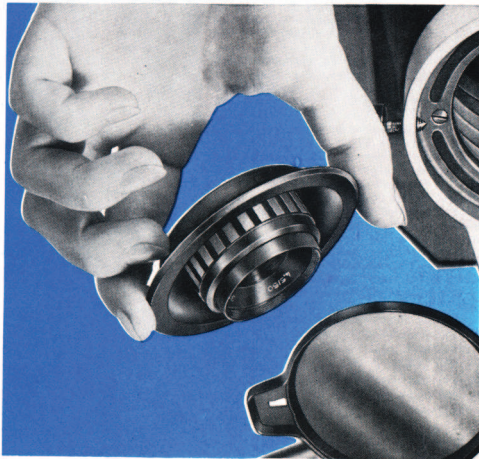


can be switched on by operating the feed-through switch (Fig. I-8). When working with the enlarger, the venting holes of the lamp-house and of the colour head must not be covered.

4. Insertion of Negative into Negatives Carrier

Take the negative carrier out of the apparatus. Open it and set the guiding stops (Fig. VI-3) so that they correctly guide the film band. If the stops are set to their extreme position, the nearest to the centre of the carrier, they are adjusted for a 35 mm film. The other two positions of the stops are intended for 40 and 60 mm roll films. When removing the glasses from the carrier for their cleaning or replacement, the stops have to be set to that extreme position which is the farthest from the carrier centre. The 70 mm film band is directed by the lugs in which the bottom glass is secured. Place the film band or its cut-off part into the carrier, making use of the guiding stops, with the sensitive layer downwards, i.e., so as to face the lens, and close the carrier. Insert the coiled ends of the film band into the film holders (Fig. IX-1). Slide the carrier into the apparatus; when doing so, a slight resistance of springs (holding the two carrier halves together and thus nipping the film band between the glasses) has to be overcome. If it is desired to shift the film band into the carrier, lift the upper part of the latter (Fig. VIII-2), whereby the film band is released and can be shifted to and fro without any risk of damage. When handling the film band, be sure to hold its opposite edges carefully with your fingers so as to avoid touching the emulsion-covered sensitive layer.

IV



5. Adjusting of Required Magnification Ratio of Image

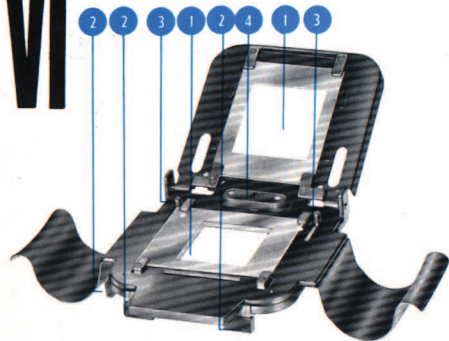
Open fully the objective diaphragm by turning the diaphragm mount (stop ring) up to the extreme position (Fig. IX-2), so that the "4.5" stop number is set opposite the white mark. Switch on the lamp and project the image on to a sheet of auxiliary paper placed on the baseboard. By rotating the turnknob (Fig. IX-3) raise or lower the apparatus proper on the stand, until the required magnification grade is obtained. Simultaneously, carry out rough focusing of the image on the baseboard (i.e., on the auxiliary paper) by rotating the focusing turnknob (Fig. IX-4).

6. Focusing of Image

After the required magnification has been adjusted, perform the fine focusing of the image. For this purpose, the negatives carrier is provided with a slit-line focusing system (Fig. VI-4), which is operated as follows: Pull the carrier partly out of the apparatus to the position at which the pressure springs distinctly snap into the cutouts of the carrier. The picture on the image-plane disappears, being replaced by a pattern (Fig. VII) formed by the projection of the slit-line focusing system. If the image is not focused properly, the shape of the produced pattern, will be similar to that shown in Fig. VII-a, or Fig. VII-b. Next, rotate the focusing turnknob in clockwise or anticlockwise direction until the shape of the pattern takes the form of a continuous line (Fig. VII-c). In this way also the negative is simultaneously fine-focused. By reinserting, the carrier the whole focusing procedure is completed.



VI



7. Masking-off of Negatives

The required magnification-grade adjusted and the image focusing procedure completed, proceed to masking the image with the auxiliary masks, leaving only the effective area free; the masks are mounted direct in the bottom part of the negatives carrier (Fig. VI-2). In this way, the disturbing light is prevented from dispersing into the ambient environment and possible deteriorating of the positive image quality is avoided.

8. Stopping-down of Lens

The focusing and masking-off procedures completed, set a suitable stopping down of the lens by rotating the diaphragm mount (stop ring) — (Fig. IX-2), marked with the figures indicating the respective stop numbers: 4.5, 5.6, 8, 11, 16, 22.

Set the selected stop number opposite the white index mark. The higher the stop number, the more stopped-down is the lens and the smaller is the amount of light passing through it. With exception of the first one, i.e., "4.5", the stop numbers are so selected that always the next higher number corresponds to half the volume of light passing through the lens. Thus, for instance, if the lens is stopped down to "8", a certain amount of light passes through it. Now, an stopping

VII