

# Leitz

*monocular and binocular microscopes*



*...for the medical profession*

E. LEITZ, INC. 304 Hudson Street, New York 13, N. Y.

# Leitz ... Quality that assures Lifetime

Leitz Microscopes, manufactured for more than 100 years, are recognized the world over as precision instruments of highest quality that embody the latest improvements optical science can provide.

Precision and quality are the dominating factors in the manufacture of Leitz microscopes. These universally respected standards are carefully maintained through vigorous and constant inspection.

As the owner of a Leitz Medical Microscope, you are assured of efficient, precise service during a lifetime of use. Each instrument is guaranteed against any defect in optical or mechanical construction. Here in New York, we maintain complete mechanical and optical repair facilities so that you can always be sure of genuine parts and expert workmanship.

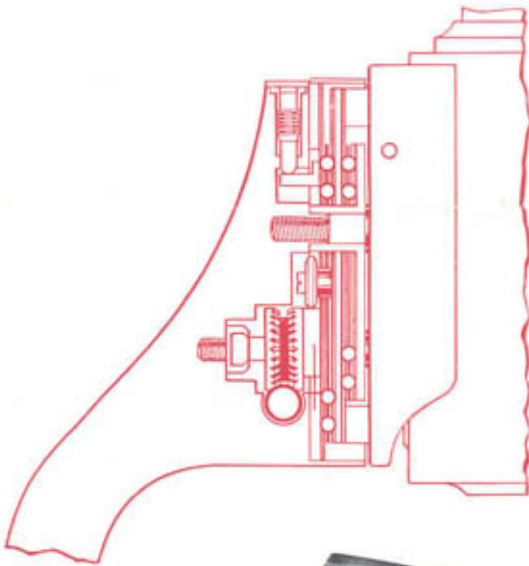
The microscope required by medical schools normally is equipped with Achromatic objectives and Huyghenian eyepieces. The objectives may range in initial magnification from 2.5x to 100x oil immersion and the oculars are, normally, 5 or 6x and 10x. You are assured of a top quality optical system when using Leitz lenses.



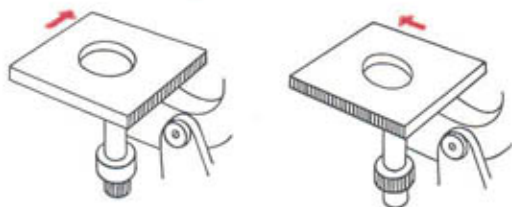
The monocular microscopes are, of course, less expensive than the binocular models. However, for extended periods of investigation, a binocular microscope is recommended. The Leitz GO series of monocular microscopes has a fixed monocular tube, whereas the BO series Leitz monocular stand has the interchangeable tube feature so that a binocular tube can later be fitted to the stand if desired.

This cutaway of the BO and BS type microscopes shows the coarse adjustment by rack and pinion, and the micrometer fine adjustment by vernier screw. Virtually floating on double ball bearings, it positively assures vernier readings to 0.001mm.

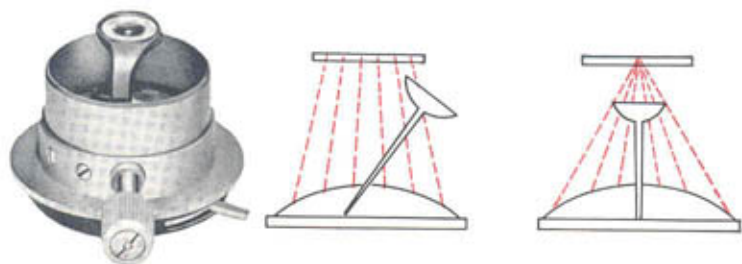
All Leitz medical microscope stands accept either the triple or quadruple revolving dust-proof nosepieces, according to the requirements of your medical school. Should the triple nosepiece be required, the three lenses normally furnished are the 10x (16mm.), 45x (4mm.), and the 100x (1/12 oil immersion). Should the quadruple nosepiece be required, the fourth lens normally supplied is the Achromat 32mm., 3.5x scanning, or survey, lens.



## Accuracy and Precision



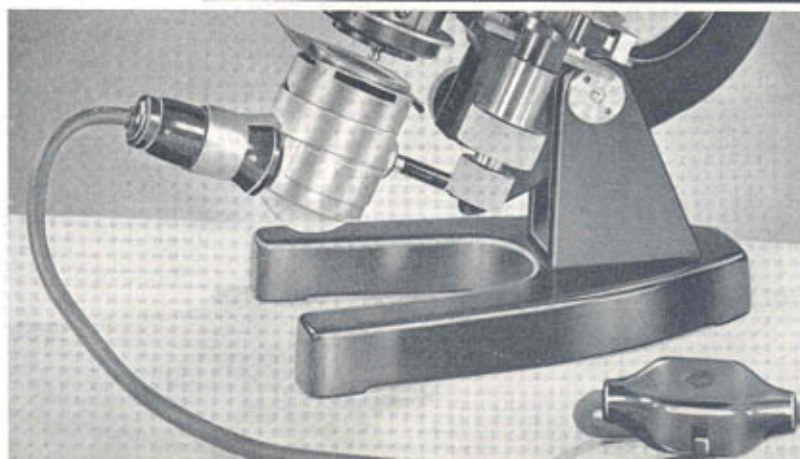
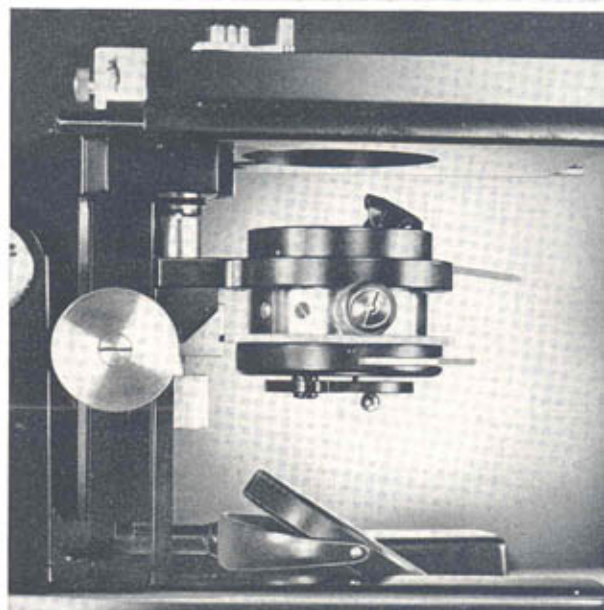
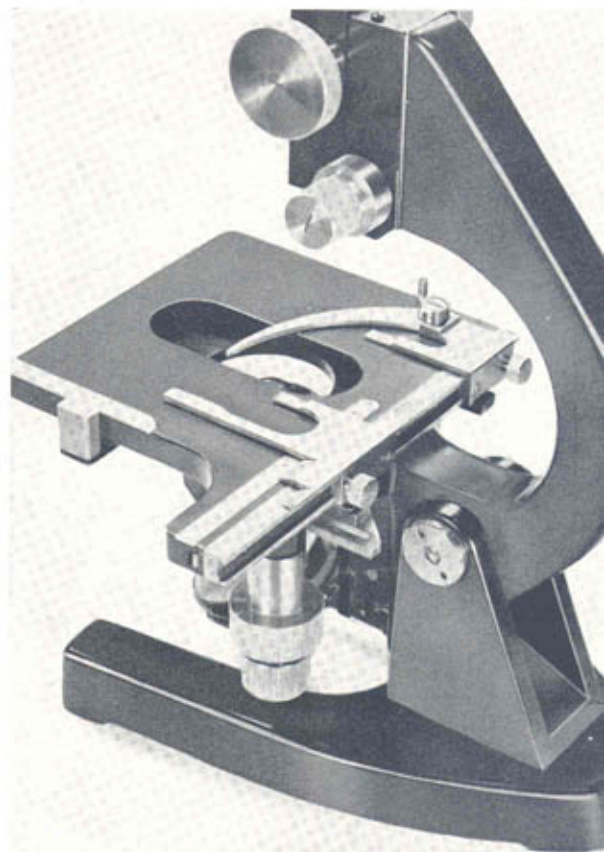
The new, improved Leitz mechanical stage with low-set drives on a common axis traverses an area of 3" x 2". This stage is a research type mechanical stage which may be either graduated or ungraduated, as desired, with long, dovetail surfaces and careful machined rack and pinion to give the mechanical stage precise and positive travel. The stage clips for the new mechanical stage can easily be removed so that a clear stage plate is readily accessible.

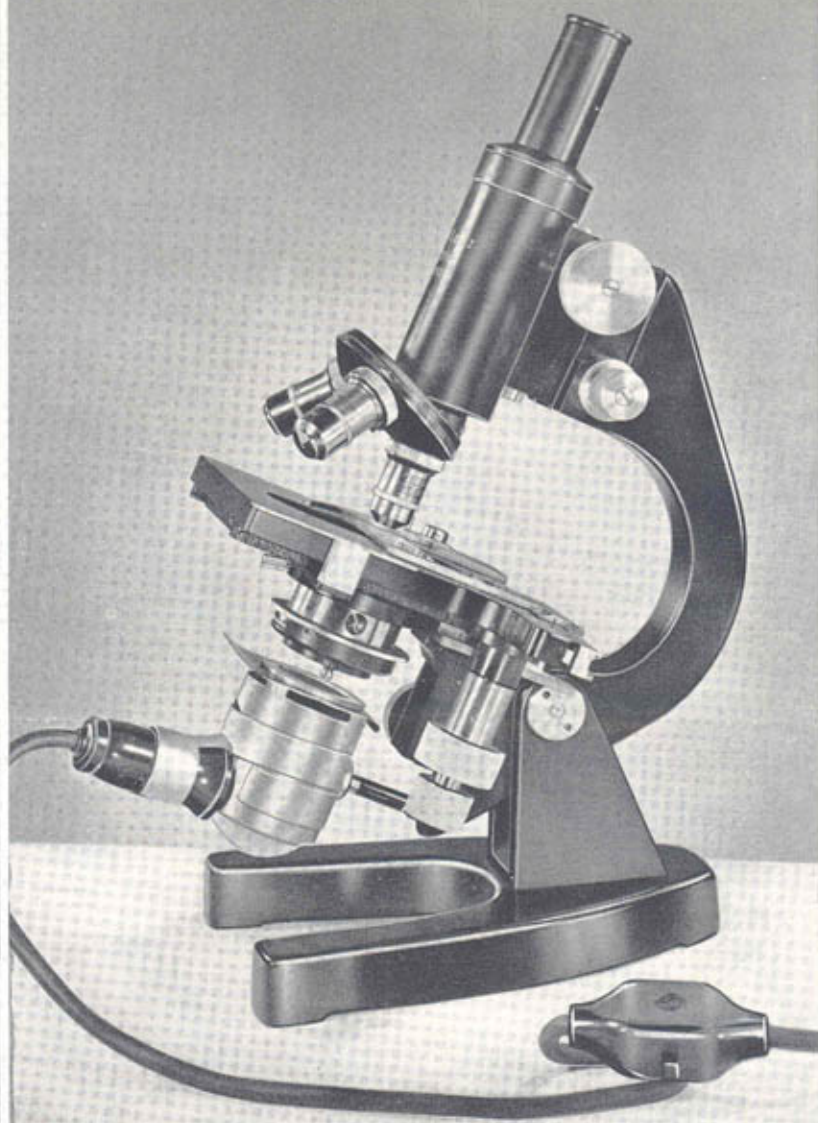


The new and improved Abbé-type substage condenser with a numerical aperture of 0.90 has a swing-out upper element that is used for rapidly changing the illumination for high magnification to low magnification. With the condenser swung into position, the light is concentrated and used with objectives that have a numerical aperture of 0.25 and over. When using objectives with a smaller numerical aperture than 0.25, the upper elements should be swung out of position so that the light strikes the slide over a comparatively wider area. Should the older type Abbé condenser with a numerical aperture of 1.20 be desired, it may be supplied and the price is the same as the new type.



The plano-concave microscope mirror which furnishes illumination to the substage can be replaced with a built-in illuminator with a 15-watt bulb, operating on 110 volts. Complete with cord, plug, and switch, it provides a positive and uniform light source.





**Leitz Monocular Microscope, Model GO 20/92K,** with plain square stage, fixed monocular tube, coarse adjustment by rack and pinion, micrometer fine adjustment with vernier, new Abbé type condenser, N.A. 0.90, with swing-out element and focusing motion, mirror and fork, triple dust-proof nosepiece, Achromatic objectives 16mm. (10x); 4mm. (45x); oil immersion 2mm. (100x), N.A. 1.30, anti-reflection coated; Huygenian eyepieces 6x and 10x; complete with leatherette carrying case.

- a) MICROSCOPE GO 20/92K-10 ..... "Instu" \$258.00
- b) Same as above but with built-in substage lamp 110 volts, 15 watts, instead of mirror and fork.  
MICROSCOPE GO-L 20/92K-10 "Instu-L" 258.00
- c) Same as under a) but with quadruple nosepiece and survey lens 3.5:1 (32mm.)  
MICROSCOPE GO 20/92K-11 ..... "Inrst" 278.50
- d) Same as under b) but with quadruple nosepiece and survey lens 3.5:1 (32mm.)  
MICROSCOPE GO-L 20/92K-11.... "Inrst-L" 278.50

Prices Subject to Change Without Notice

**Leitz Monocular Microscope Model GO 47/92K,** with fixed monocular tube; coarse adjustment by rack and pinion motion; fine adjustment with micrometer screw and vernier reading; new, improved, mechanical stage with low-set drives on a common axis; traversing area 3" x 2". New, improved substage condenser N.A. 0.90, with swing-out upper element on rack and pinion motion. Triple, revolving dust-proof nosepiece. Achromatic objectives 16mm. (10x); 4mm. (45x); oil immersion 2mm. (100x), N.A. 1.30, anti-reflection coated; Huygenian eyepieces 6x and 10x; complete with leatherette carrying case.

- a) MICROSCOPE GO 47/92K-10 ..... "Inmno" \$299.00
- b) Same as above, but with built-in substage lamp instead of mirror and fork.  
MICROSCOPE GO-L 47/92K-10 "Inmno-L" 299.00
- c) Same as under a) but with quadruple nosepiece and survey lens 3.5:1 (32mm.)  
MICROSCOPE GO 47/92K-11 ..... "Inuvw" 319.50
- d) Same as under b) but with quadruple nosepiece and survey lens 3.5:1 (32mm.)  
MICROSCOPE GO-L 47/92K-11.... "Inuvw-L" 319.50

For those who require a condenser with a numerical aperture of 1.20, we can supply a substage condenser—codeword "ilkon"—which may be substituted in any of the above combinations.

Leitz

models

GO  
GO-L



## Optical Equipment

### Optical Outfit No. 10:

Triple Nosepiece .....	"tripo"	\$16.00
Achromat 10:1, A 0.25 (3) .....	"acora"	17.50
Achromat 45:1, A 0.65 (6L) .....	"acmat"	31.00
Achromatic oil immersion, Oil 100:1, A 1.30, "C," coated .....	"oilim-C"	63.00
Huyghens eyepiece 6x .....	"hyzwa"	5.50
Huyghens eyepiece 10x .....	"hyvir"	5.50

### Optical Outfit No. 10-1:

Quadruple Nosepiece .....	"quato"	20.00
Achromat 10:1, A 0.25 (3) .....	"acora"	17.50
Achromat 45:1, A 0.65 (6L) .....	"acmat"	31.00
Achromatic oil immersion, Oil 100:1, A 1.30, "C," coated .....	"oilim-C"	63.00
Huyghens eyepiece 6x .....	"hyzwa"	5.50
Huyghens eyepiece 10x .....	"hyvir"	5.50

### Optical Outfit No. 11:

Quadruple Nosepiece .....	"quato"	20.00
Achromat 3.5:1, A 0.10 (lh) .....	"oanee"	16.50
Achromat 10:1, A 0.25 (3) .....	"acora"	17.50
Achromat 45:1, A 0.65 (6L) .....	"acmat"	31.00
Achromatic oil immersion, Oil 100:1, A 1.30, "C," coated .....	"oilim-C"	63.00
Huyghens eyepiece 6x .....	"hyzwa"	5.50
Huyghens eyepiece 10x .....	"hyvir"	5.50

Any of the above GO-L Microscopes can be supplied with uncoated oil immersion, deduct \$10.00.

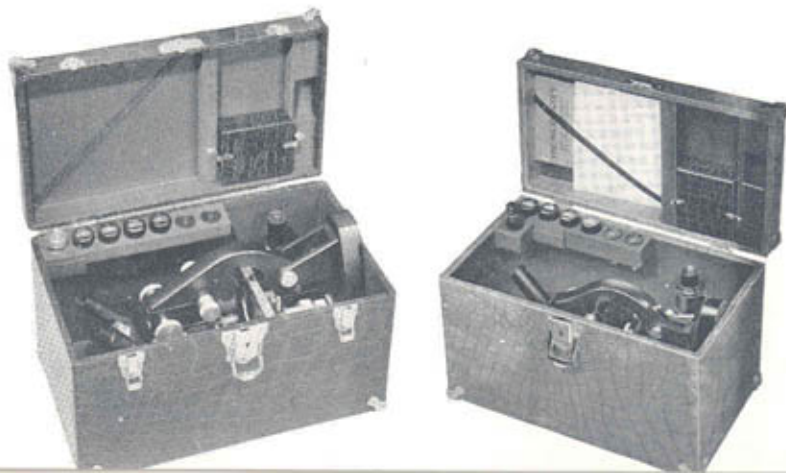
## Carrying Cases for Models BO and GO

Leatherette carrying case for BO microscopes .....	"lnbcd"	15.00
Leatherette carrying case for GO microscopes .....	"lnefg"	15.00

**Leitz Monocular Microscope Model GO 48/92K,** with fixed monocular tube; coarse adjustment by rack and pinion motion; fine adjustment with micrometer screw and vernier reading; new, improved, graduated mechanical stage with low-set drives on a common axis; traversing area 3" x 2". New, improved substage condenser N.A. 0.90, with swing-out upper element on rack and pinion motion. Triple, revolving dust-proof nosepiece. Achromatic objectives 16mm. (10x); 4mm. (45x); oil immersion 2mm. (100x), N.A. 1.30, anti-reflection coated; Huyghenian eyepieces 6x and 10x; complete with leatherette carrying case.

- a) MICROSCOPE GO 48/92K-10 ..... "lnpqr" \$305.00
- b) Same as above but with built-in substage lamp instead of mirror and fork.  
MICROSCOPE GO-L 48/92K-10 "lnpqr-L" 305.00
- c) Same as under a) but with quadruple nosepiece and survey lens 3.5:1 (32mm.)  
MICROSCOPE GO 48/92K-11..... "lnxyz" 325.50
- d) Same microscope as under b) but with quadruple nosepiece and survey lens 3.5:1 (32mm.)  
MICROSCOPE GO-L 48/92K-11.. "lnxyz-L" 325.50

Apply our regular Abbé con-  
ditions, in place of the 0.90.





**Leitz Interchangeable Monocular Microscope Model BO 47/92K**, with interchangeable, fixed, monocular tube, large diameter; coarse adjustment by rack and pinion motion; fine adjustment on *double ball bearings* with vernier readings to 0.001mm. New, improved mechanical stage with low-set drives on a common axis. Traversing area 3" x 2"; new, improved substage condenser N.A. 0.90, with swing-out upper element on rack and pinion motion. Quadruple, revolving, dust-proof nosepiece; Achromatic objectives 16mm. (10x); 4mm. (45x); oil immersion 2mm. (100x) N.A. 1.30, anti-reflection coated; Huyghenian eyepieces 6x and 10x; *complete with leatherette carrying case.*

- a) MICROSCOPE BO 47/92K-10-1 ..... "Inghi" \$327.00
- b) Same as above but with built-in substage lamp instead of mirror and fork.  
MICROSCOPE BO-L 47/92K-10-1 "Inghi-L" 327.00
- c) Same as under a) but with Optical Outfit No. 11, including survey lens 3.5:1 (32mm.)  
MICROSCOPE BO 47/92K-11..... "Inbac" 343.50
- d) Same as under b) but with Optical Outfit No. 11, including survey lens 3.5:1 (32mm.)  
MICROSCOPE BO-L 47/92K-11.... "Inbac-L" 343.50

**Leitz Interchangeable Monocular Microscope Model BO 48/92K**, with interchangeable, fixed, monocular tube, large diameter; coarse adjustment by rack and pinion motion; fine adjustment on *double ball bearings* with vernier readings to 0.001mm. New, improved, graduated mechanical stage with low-set drives on a common axis. Traversing area 3" x 2"; new, improved substage condenser N.A. 0.90, with swing-out upper element on rack and pinion motion. Quadruple, revolving dust-proof nosepiece; Achromatic objectives 16mm. (10x); 4mm. (45x); oil immersion 2mm. (100x) N.A. 1.30, anti-reflection coated; Huyghenian eyepieces 6x and 10x; *complete with leatherette carrying case.*

- a) MICROSCOPE BO 48/92K-10-1 ..... "Injkl" \$333.00
- b) Same as above but with built-in substage lamp instead of mirror and fork.  
MICROSCOPE BO-L 48/92K-10-1. "Injkl-L" 333.00
- c) Same as under a) but with Optical Outfit No. 11, including survey lens 3.5:1 (32mm.)  
MICROSCOPE BO 48/92K-11 ..... "Inbde" 349.50
- d) Same as under b) but with Optical Outfit No. 11, including survey lens 3.5:1 (32mm.)  
MICROSCOPE BO-L 48/92K-11 .... "Inbde-L" 349.50

*For those who require a condenser with a numerical aperture of 1.20, we can supply our regular Abbé condenser—codeword "ilkon"—which may be substituted in any of the above combinations, in place of the 0.90.*



**Leitz Interchangeable Inclined Binocular Microscope Model BS 47/92K**, with interchangeable, inclined binocular tube; coarse adjustment by rack and pinion motion; fine adjustment on *double ball bearings* with vernier readings to 0.001mm. New, improved mechanical stage with low-set drives on a common axis; traversing area 3" x 2". New, improved substage condenser N.A. 0.90, with swing-out upper element on rack and pinion motion. Quadruple, revolving, dust-proof nosepiece; Achromatic objectives 16mm. (10x); 4mm. (45x); oil immersion 2mm. (100x) N.A. 1.30, anti-reflection coated; paired Huyghenian eyepieces 6x and 10x; *complete with leatherette carrying case.*

- MICROSCOPE BS 47/92K-10a ..... "Inabc" \$480.00
- Same microscope as above, but with graduated, mechanical stage No. 48.
- MODEL BS 48/92K-10a ..... "Indef" 486.00
- Fixed, monocular tube, wide diameter, for above microscope ..... "ingep" 16.00
- Inclined, binocular tube for above microscope ..... "ipots" 158.00

Prices Subject to Change Without Notice



*Leitz* models

**BO  
BO-L  
BS**

**Optical Equipment**

**Optical Outfit No. 10:**

- Triple Nosepiece ..... "tripo" \$16.00
- Achromat 10:1, A 0.25 (3) ..... "acora" 17.50
- Achromat 45:1, A 0.65 (6L) ..... "acmat" 31.00
- Achromatic oil immersion, Oil 100:1, A 1.30, "C," coated ..... "oilim-C" 63.00
- Huyghens eyepiece 6x ..... "hyzwa" 5.50
- Huyghens eyepiece 10x ..... "hyvir" 5.50

**Optical Outfit No. 10-1:**

- Quadruple Nosepiece ..... "quato" 20.00
- Achromat 10:1, A 0.25 (3) ..... "acora" 17.50
- Achromat 45:1, A 0.65 (6L) ..... "acmat" 31.00
- Achromatic oil immersion, Oil 100:1, A 1.30, "C," coated ..... "oilim-C" 63.00
- Huyghens eyepiece 6x ..... "hyzwa" 5.50
- Huyghens eyepiece 10x ..... "hyvir" 5.50

**Optical Outfit No. 11:**

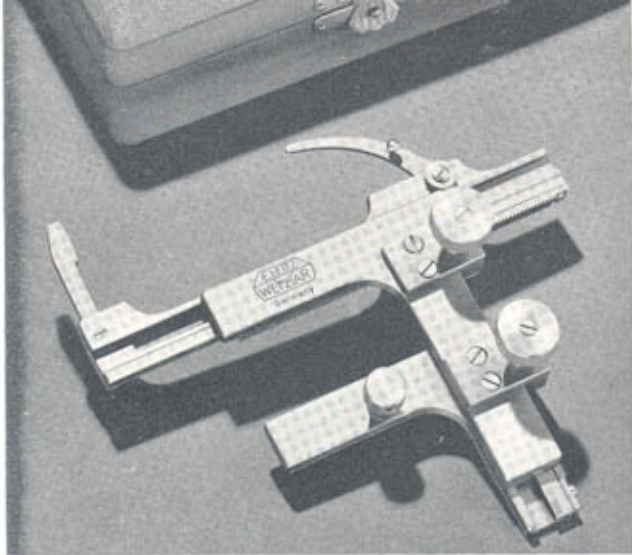
- Quadruple Nosepiece ..... "quato" 20.00
- Achromat, 3.5:1, A 0.10 (lh) ..... "oanee" 16.50
- Achromat 10:1, A 0.25 (3) ..... "acora" 17.50
- Achromat 45:1, A 0.65 (6L) ..... "acmat" 31.00
- Achromatic oil immersion, Oil 100:1, A 1.30, "C," coated ..... "oilim-C" 63.00
- Huyghens eyepiece 6x ..... "hyzwa" 5.50
- Additional Huyghens eyepiece 10x ..... "hyvir" 5.50
- Achromatic low power objective lh (survey lens) 3.5x, N.A. 0.10 ..... "oanee" 16.50



**Substage Illuminating Equipment**

- Substage illuminator to be inserted into the substage mirror sleeve, with bulb 15 watts, 110 volts, cord, switch and plug ..... "fimee" \$8.10
- Spare bulb, 15 watts, 110 volts ..... "fleea" 1.20
- Microscope mirror, plano-concave, with fork and pin for insertion into the substage mirror sleeve ..... "lnopq" 8.10



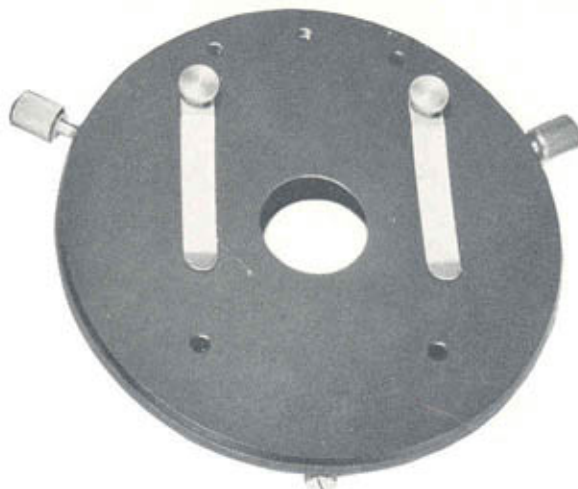


### Attachable Mechanical Stage 43

This stage attaches, by means of a screw, to the surface of square or round stages of any microscope. Its movement is controlled by two racks and pinions and, thereby, affords a methodical examination of specimens. The stage accepts slides of standard size and is not provided with scales or verniers. .... "pieev" \$40.00

*Leitz*

### Microscope and Mechanical Stages



### Revolving Stage

Round, revolving and centering stage, #23, 120mm. diameter on understage with centering screws. .... "peetr" \$38.00

*Leitz*

### Darkfield Accessories

**D 0.80** is a reflecting, dry condenser which is particularly well adapted for use with medium power "dry" objectives. The dark ground condenser is especially useful in cases where extensive series of objects have to be examined in rotation, as frequently arises in clinical tests. It is exceedingly convenient and easy to manipulate in that it requires neither delicate adjustments nor the use of immersion oil. Even for positional, detailed examinations of bacteriological specimens its aperture is amply sufficient, as proved by the fact that the condenser has recently been extensively adopted for this purpose. Owing to the ease with which it is manipulated, it is probably the best type of dark ground condenser for initiating students and practical microscopists into the use of dark ground methods. .... "seebk" \$86.00

**D 1.20a** is an immersion condenser and is also suitable for smear preparations. It is mainly intended for use with high power objectives, and is adapted for observing objects embedded in media having refractive indices exceeding 1.0 (e.g. water, balsam). It is provided with a centering device, and in view of its shorter focal length has its pencils of rays brought to a focus with greater precision. Highly corrected and standard equipment of the skilled microscopist. .... "conci" \$60.00

### Intermediate Objective Adapter and Iris Diaphragm

Intermediate objective adapter with iris diaphragm to reduce the numerical aperture of the objective if it exceeds the aperture of the dark ground condenser in use. .... "irtis" \$8.00

### Leitz Two-Diaphragm Berek Condenser

with swing-out upper element, numerical aperture 0.95, with aperture and field diaphragm in centering mount. The aperture can be increased to N. A. 1.40 by employing the interchangeable condenser cap "orapu." .... "ikbec" \$94.00

### Leitz Aplanatic Achromatic Condenser

in centering mount, N. A. 1.40; highly corrected immersion condenser with a focal length of 9.3mm., triple divisible, for high, medium, and low power lenses, especially recommended for photomicrography. .... "ilpen-irisa-pocon" \$90.00

NOTE: When employing oil immersion objectives with the condenser at full aperture (1.40), make certain that the Micro slide is 1.2mm. thick or less.



"irtis"



"conci"



"ikbec"



"ilpen-irisa-pocon"



**ERIC SOBOTKA**  
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