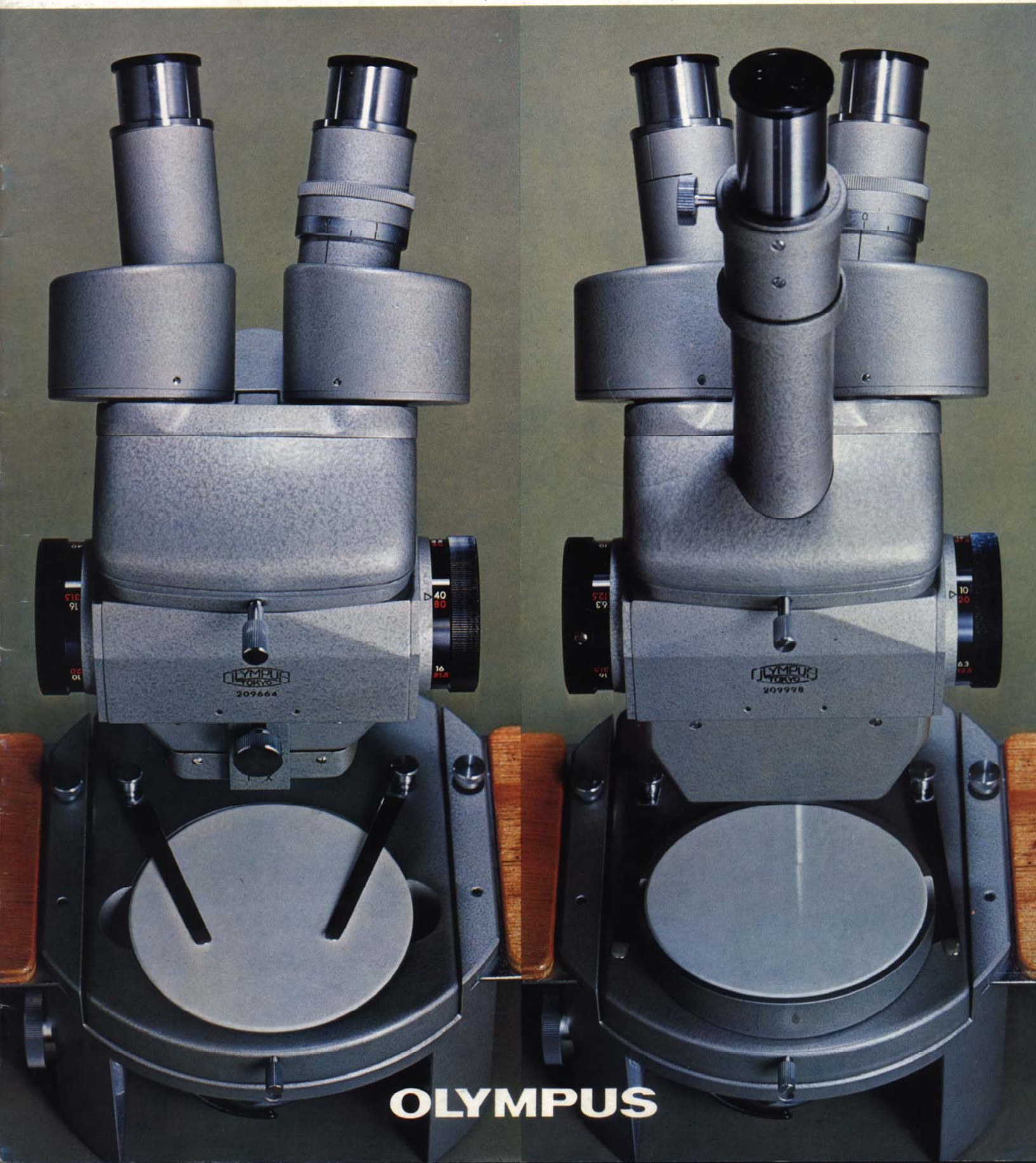
OLYMPUS STEREO MICROSCOPES

MODELS X/X-Tr

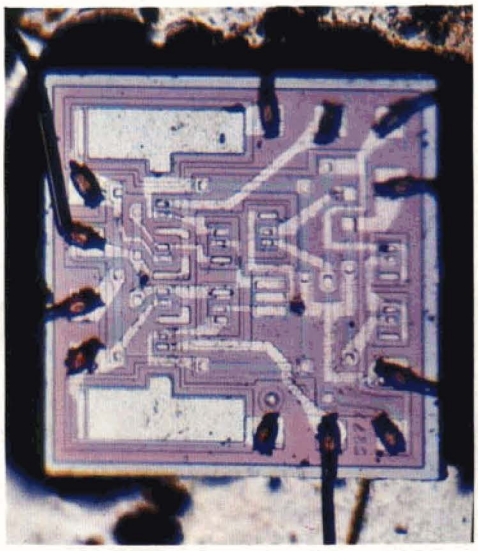


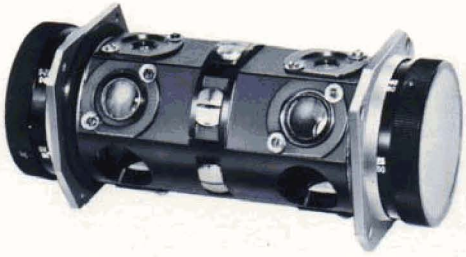
OLYMPUS

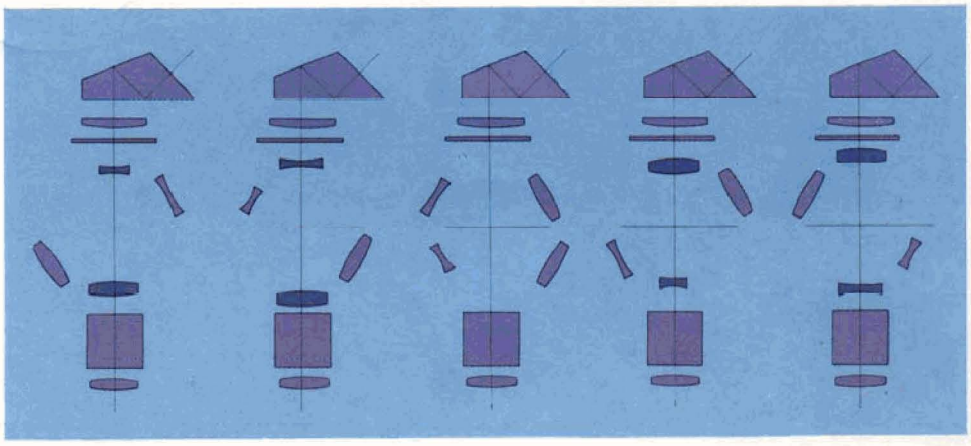
The Olympus stereo microscope puts three dimensional reality into viewing

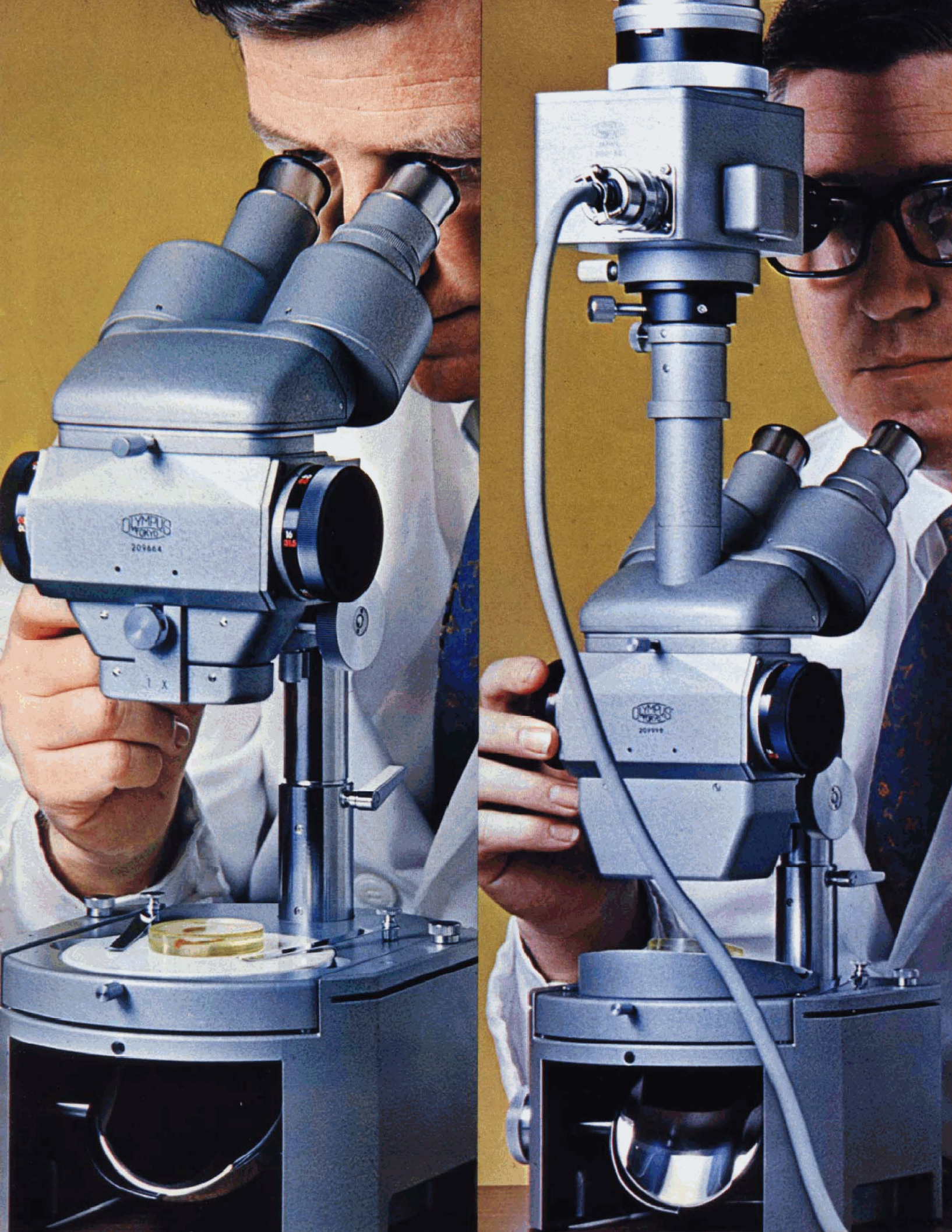
These stereo microscopes give multi-purpose service

By employing the Greenough's Principle Olympus has created a completely modern and versatile instrument.
The result is a very practical and useful stereo micrscope.
The stereo microscope's traditional use was in plant classification, anatomical examination of animals, etc, but today they are also widely used in industrial fields such as the electronics industry.
Twin beams pass through two optical paths to converge on the specimen.
This results in a three dimensional view of the specimen with the various parts and layers appearing in natural relief.
This makes the Olympus X and X-Tr highly valuable for the observation of numerous objects where depth and texture are important aspects of the work and, with the X-Tr, where clearly detailed photomicrographic records are desired.
The modern features of the Olympus stereo microscope result in beautifully natural erect images.
An interesting feature of the X and X-Tr models is the new five-step magnfication changeover made available simply by turning a turret. The optics mounted around a cylindrical turret which, when rotated, give stable and positive magnification changes.





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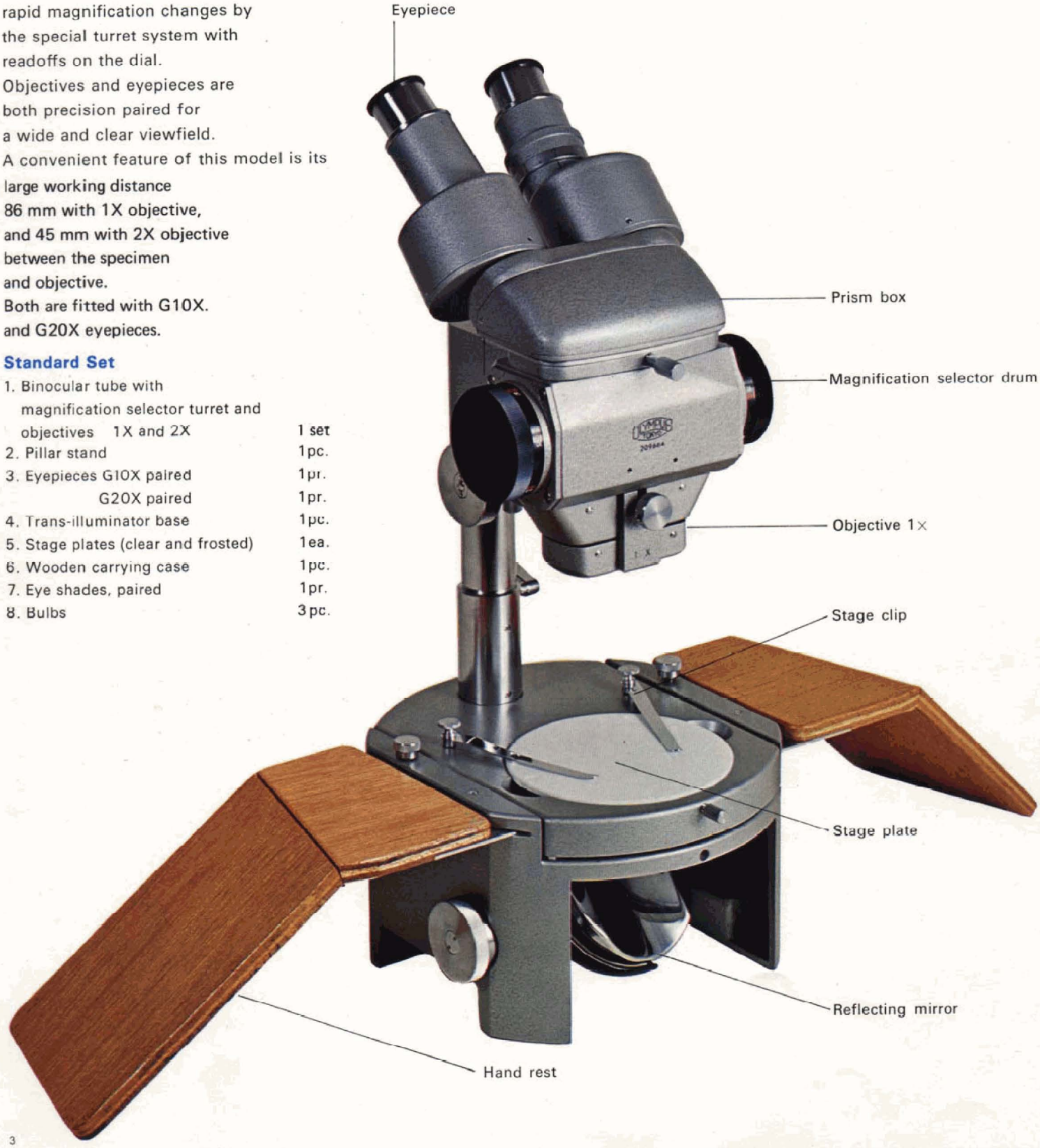
Model X

Olympus stereo microscope model X has a reversible binocular tube inclined at 45° to the main body to allow the observer optimum working comfort. Large knobs either side of the body give rapid magnification changes by the special turret system with readoffs on the dial. Objectives and eyepieces are both precision paired for a wide and clear viewfield. A convenient feature of this model is its large working distance 86 mm with 1X objective, and 45 mm with 2X objective between the specimen and objective. Both are fitted with G10X. and G20X eyepieces.

Standard Set

1. Binocular tube with magnification selector turret and objectives 1X and 2X	1 set
2. Pillar stand	1pc.
3. Eyepieces G10X paired	1pr.
G20X paired	1pr.
4. Trans-illuminator base	1pc.
5. Stage plates (clear and frosted)	1ea.
6. Wooden carrying case	1pc.
7. Eye shades, paired	1pr.
8. Bulbs	3pc.

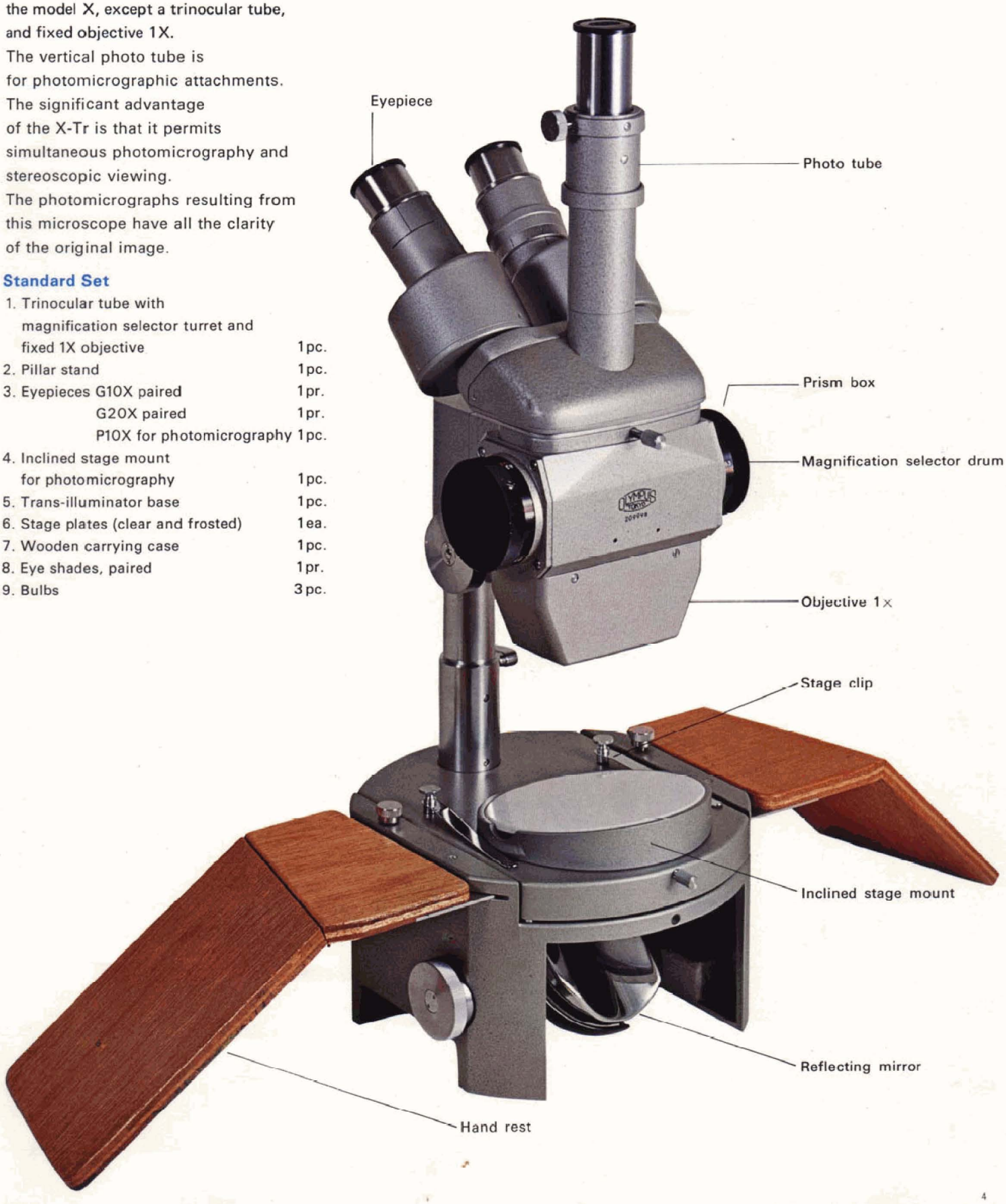


Model X-Tr

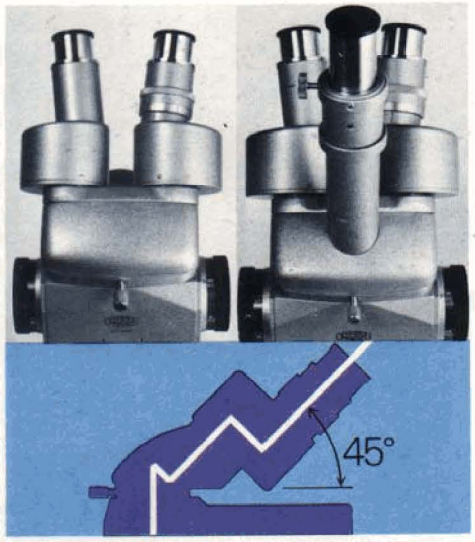
The model X-Tr offers basically the same stereo microscopic ability as the model X, except a trinocular tube, and fixed objective 1X.
The vertical photo tube is for photomicrographic attachments.
The significant advantage of the X-Tr is that it permits simultaneous photomicrography and stereoscopic viewing.
The photomicrographs resulting from this microscope have all the clarity of the original image.

Standard Set

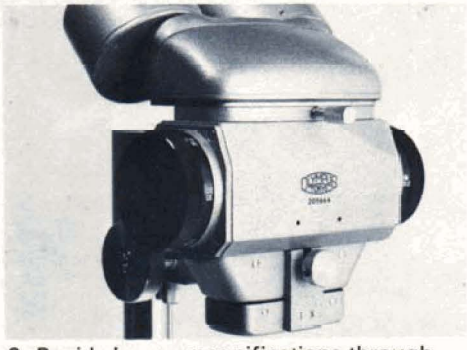
1. Trinocular tube with magnification selector turret and fixed 1X objective	1pc.
2. Pillar stand	1pc.
3. Eyepieces G10X paired	1pr.
G20X paired	1pr.
P10X for photomicrography	1pc.
4. Inclined stage mount for photomicrography	1pc.
5. Trans-illuminator base	1pc.
6. Stage plates (clear and frosted)	1ea.
7. Wooden carrying case	1pc.
8. Eye shades, paired	1pr.
9. Bulbs	3pc.



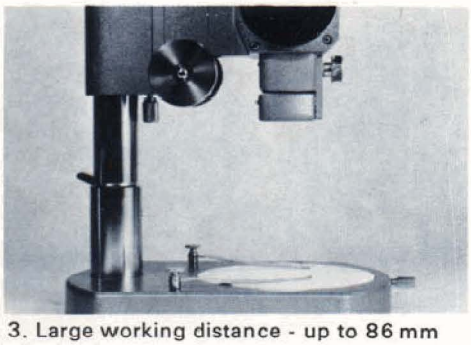
Features:



1. Binocular tube for X with 45° inclination. Detachable and reversible 180°. Trinocular tube for X-Tr.

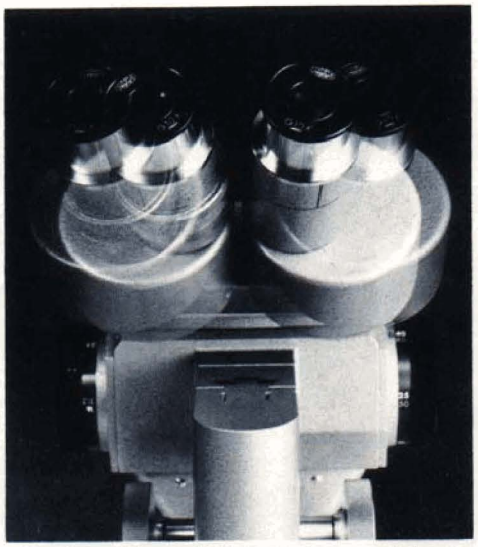


2. Rapid change magnifications through 5 click stops. Right and left adjusting knobs with readoffs. 6.3X to 80X range for X-Tr, and 6.3X to 160X for X.

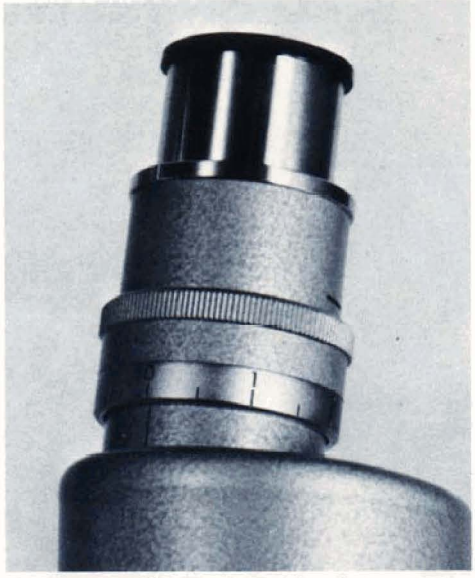


3. Large working distance - up to 86 mm with 1X objective, 45 mm with 2X objective.

4. Easy-to-observe erect image.

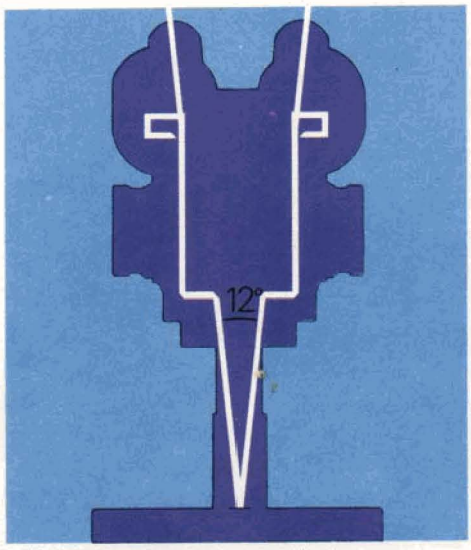


5. Interpupillary distance adjustment from 46 to 80 mm for optimum personal setting.

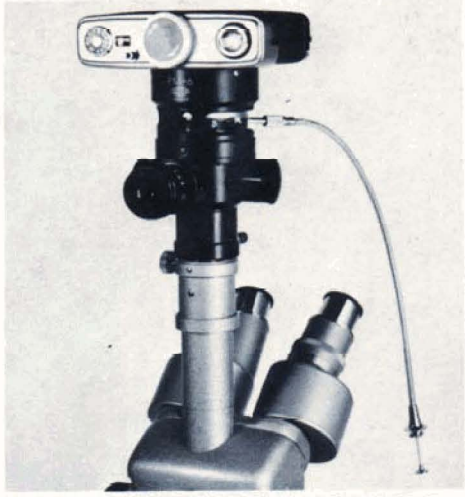


6. Dioptor adjustment ranging between +2.5 and −2.5

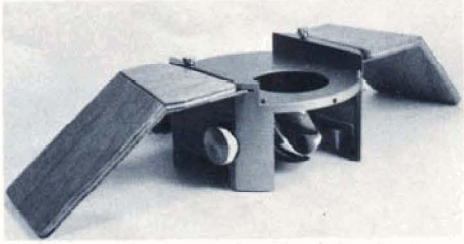
7. High resolving power Olympus eyepieces and objectives used throughout for maximum clarity.



8. 12° visual axes give realistic stereo image.



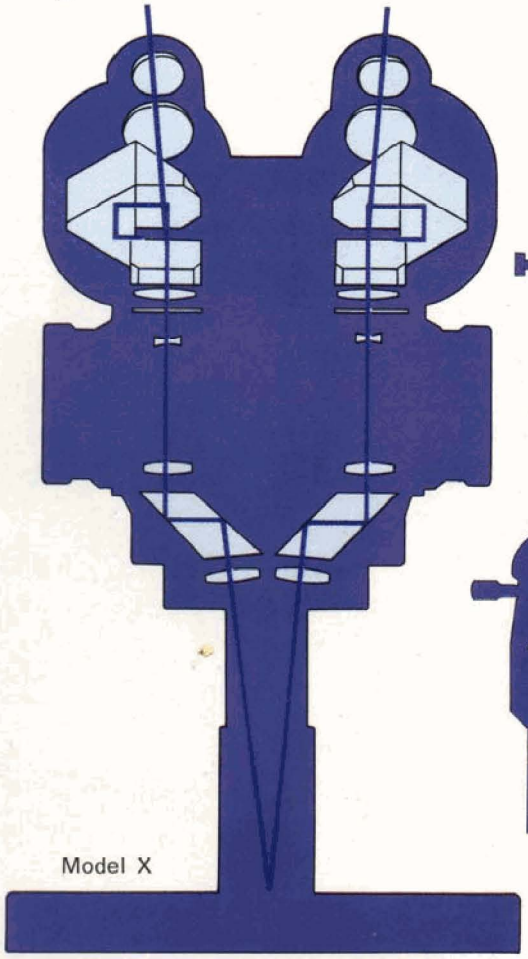
9. Model X-Tr available for coordinating stereo microscopy with photomicrography.

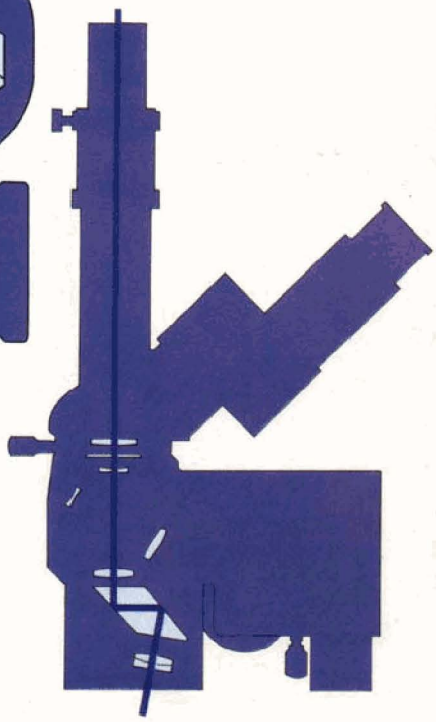


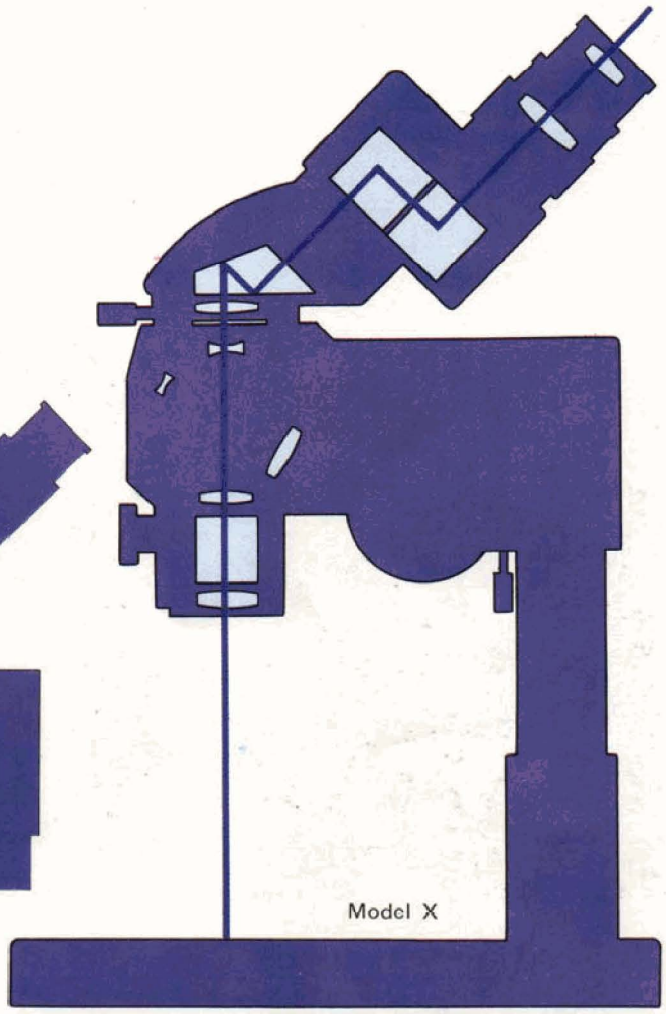
10. Trans-illuminator base provided with 20 watt bulb.

11. Broad range of optional accessories for diversified use in many fields.

Specifications:







1. Reversible and detachable binocular tube for X, trinocular tube for X-Tr
2. Five different magnifications attainable by magnification selector turret
3. Eyepieces: G10X and G20X
4. Objectives: X-Tr: 1X fixed
   X: 1X and 2X interchangeable
5. Magnifications: X-Tr: 6.3X–80X
   X: 6.3X–160X
6. Inclination of binocular tube: 45°
7. Angle of visual axes: 12°
8. Interpupillary distance adjustment: 50–80 mm (1.97–3.15") with G10X
   46–80 mm (1.81–3.15") with G 20X
9. Working distance: 86 mm and 45 mm (3.39" and 1.77")
10. Range of microscope body movement (up and down): 85 mm (3.35") Fine adjustment by rack and pinion: 38 mm (1.50") Coarse adjustment by sliding movement of inner tube in pillar: 47 mm (1.85")
11. Swinging movement of microscope body (pivoted at pillar): 100 mm (3.94") (80°)

Table of Optics

	Objectives	Eyepieces	Magnification
X	1X & 2X	G10X	6.3X—160X
X-Tr	1X	G20X	6.3X—80X

	Objectives	Working Distance	Eyepieces			
			G10X		G20X	
			Magnification	Field of view	Magnification	Field of view
X X-Tr	1X	86 mm (3.39")	6.3X	32 mm (1.26")	12.5X	16.0 mm (0.63")
			10X	20 mm (0.79")	20X	10.0 mm (0.39")
			16X	12.5 mm (0.49")	31.5X	6.25 mm (0.25")
			25X	8.0 mm (0.31")	50X	4.0 mm (0.16")
			40X	5.0 mm (0.20")	80X	2.5 mm (0.10")
X	2X	45 mm (1.77")	31.5X	6.3 mm (0.25")	63X	3.15 mm (0.12")
			50X	4.0 mm (0.17")	100X	2.0 mm (0.08")
			80X	2.5 mm (0.10")	160X	1.25 mm (0.05")

Used wherever precision is at a premium

Industry

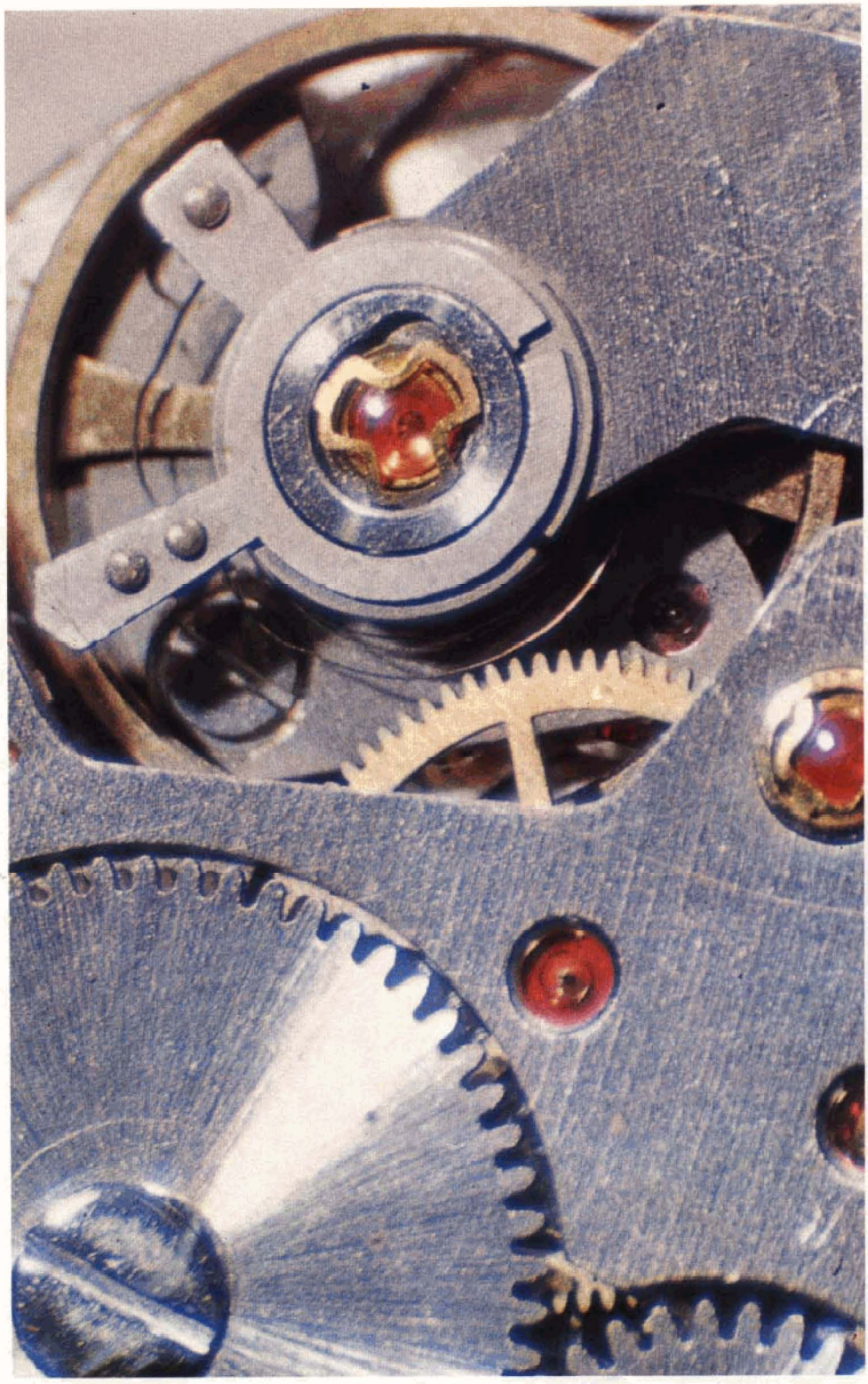
Iron and steel,
wire,
incandescent bulbs,
clocks and watches,
IC's and transistors,
paint and lacquer,
plastics,
pottery,
ceramics and abrasives,
tanneries and leather manufacture,
textiles,
food preservatives and confectionery,
wood pulp and paper.

Biology and medicine

Botany, zoology,
entomology,
parasitology,
anatomy,
embryology,
pathology,
dermatology,
histology.

Petrography and mineralogy.

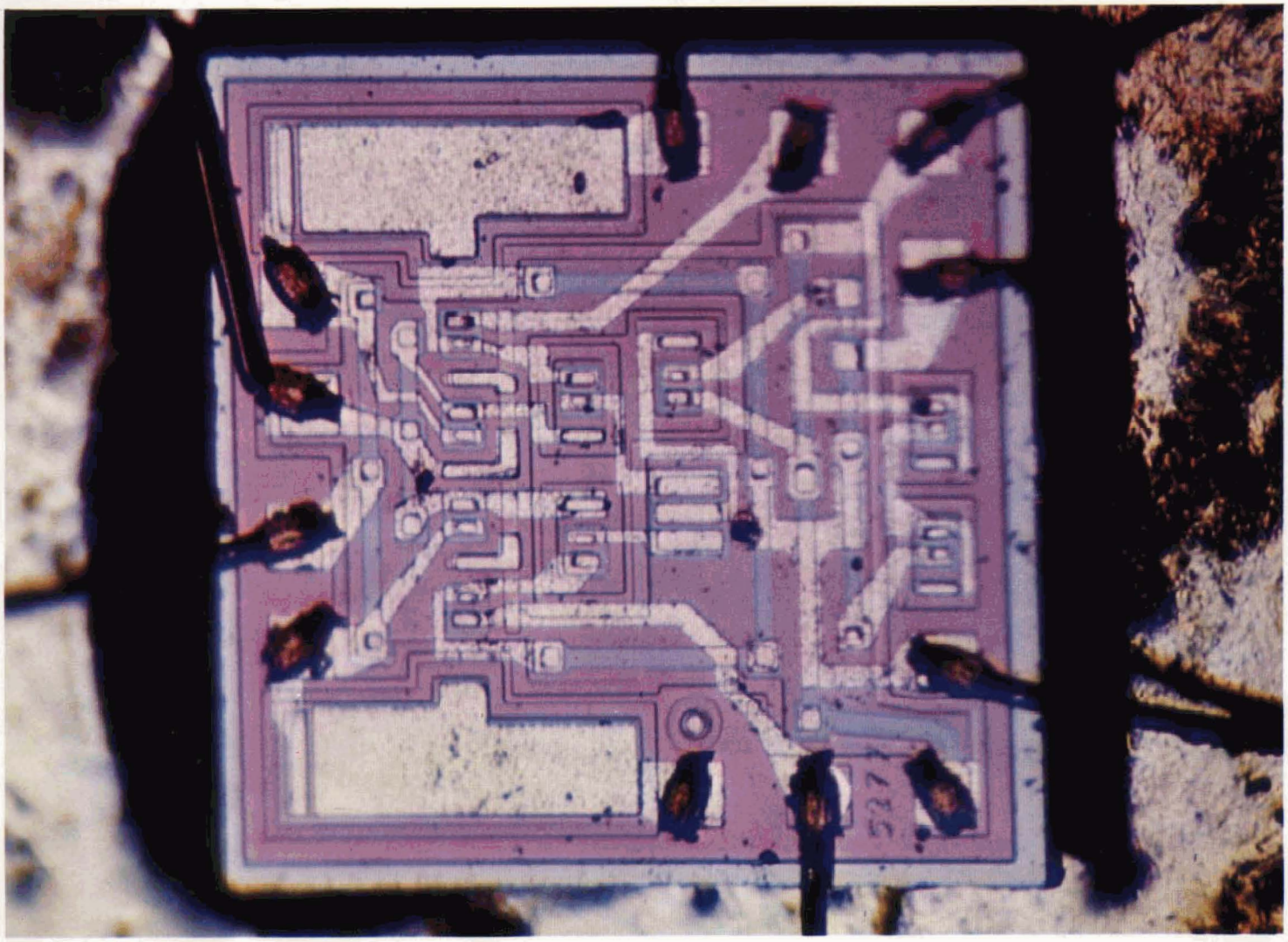
Agriculture,
archaeology,
palaeontology,
criminology, etc.



Watch components. *Magnification, 4.41X; Film speed, ASA 64; Shutter speed, 2 sec.*

Liverworts.
Magnification. 4.41X; ilm speed, ASA 64; shutter speed, 1 sec.

Glutamin.
Magnification, 6.3X; film speed, ASA 64; shutter speed, ½ sec.



IC. *Magnification, 30X. ilm speed, ASA 64; shutter speed, 2 sec.*

Optional Accessories:

G15X Eyepieces

Ideal eyepiece for wide field viewing with full chromatic and distortion correction. 16.7mm focal length. Ultra precise lens to match Olympus stereo microscope components. Field number 13.

Photographic Eyepieces P7X and P15X

Flat-field eyepieces corrected for photomicrography.

Photomicrographic System Camera Model PM-10

PM-10 is a complete system that can be adapted according to the choice of equipment to the level of work. Choice of manual (PM-10-M) or automatic basic units (PM-10-A): 35mm film, 3¼"×4¼" Polaroid®, 4"×5" film, may be used. Selection of focusing telescopes and magnifiers.

Photomicrographic Equipment Model PM-6

Produces sharp and clear pictures on 35mm film. Simultaneous photography and viewing. Shock proof shutter. Shutter speeds B and 1 sec. to 1/50sec., X-synchronization. 24×36mm picture size.

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Epi-illuminator LSG-II with Transformer TF

For crisp stereoscopic images of opaque specimens. Employs a 6V 2A illumination lamp with transformer. Quick mounting.

Universal-Illuminator Model LSD with Transformer TE-II

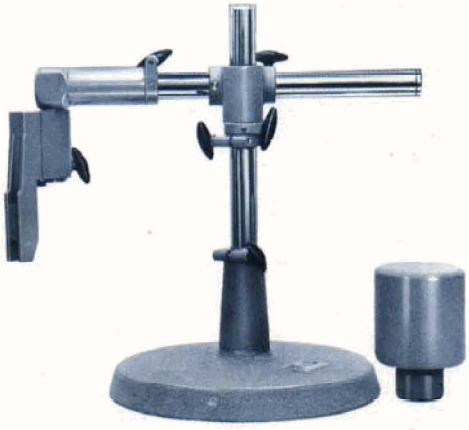
For incident illumination. Condenser rack-and-pinion travels 18 mm to permit converging, diverging and parallel adjustments of light beam. Facilitates Koehler illumination. Lamp, 6V 5A.

Fluorescent Illuminator Model VL-FL with Starter TK

Special U-shaped illuminator with a fluorescent 6 watt lamp attached around microscope body for illumination of specimen.

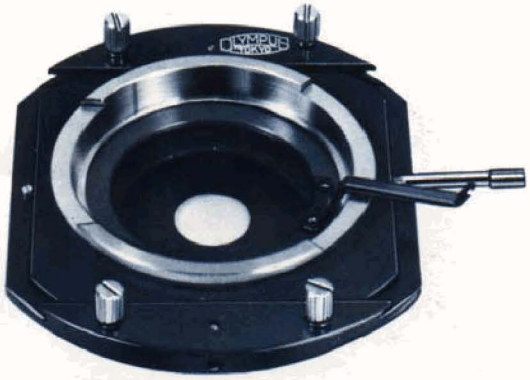
Universal Arm Model VS-IV

Suitable for the examination of large objects, particularly good for stereo microscopy. Holds complete microscope, has easy clamping system.



Aperture Iris Diaphragm

For control of transmitted-illumination. Fits on the opening of trans-illuminator base. 2 mm to 40 mm aperture adjustment.



Photomicrographic Exposuremeter Model EMM-VI

Judges best exposure time and optimum color balance. Combines with photomicrographic attachment for extensive sphere of useful applications.

OLYMPUS OPTICAL CO., LTD.
43-2 Hatagaya 2-chome, Shibuya-ku, Tokyo, Japan

OLYMPUS OPTICAL CO. (EUROPA) GMBH.
2 Hamburg 1, Steindamm 105, Germany

OLYMPUS CORPORATION OF AMERICA
2 Nevada Drive, New Hyde Park, N. Y. 11040, U.S.A.

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