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## OM-MOUNT PHOTOMICRO ADAPTER L

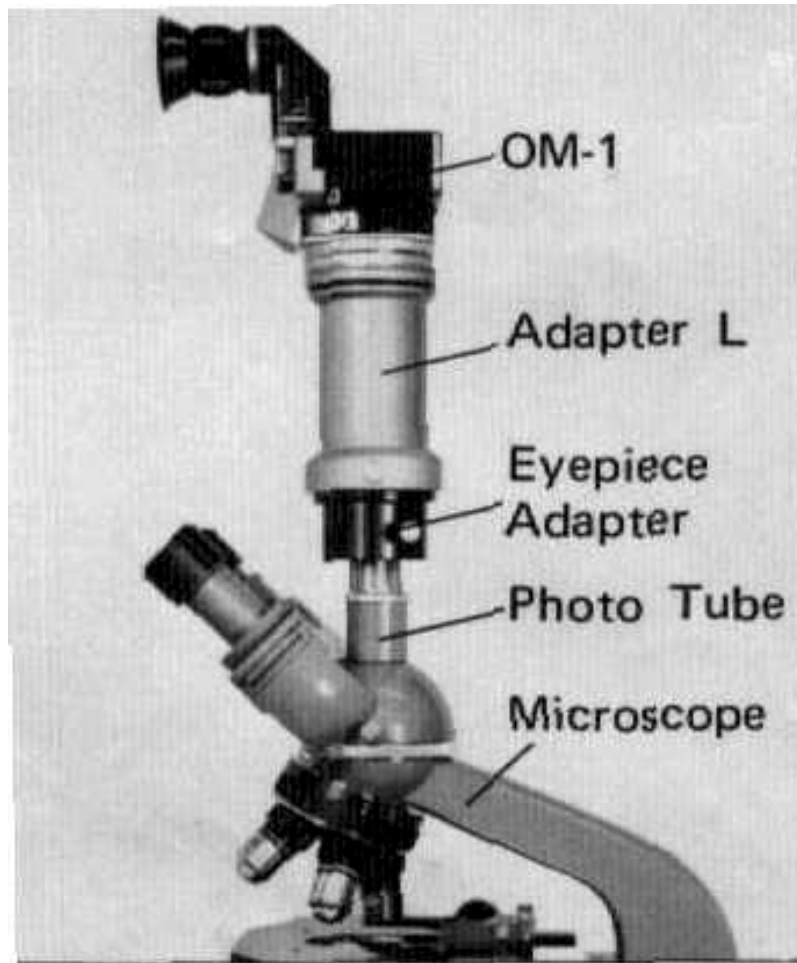
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Adapter L



For photomicrography with the OM-1 SLR Camera, this adapter is used to mount an eyepiece to the camera. In this use, the eyepieces require special eyepiece adapters FK, P or G in conjunction with an Olympus microscope except the Universal Research Microscope VANOX and the Photomicrographic Stand PM-PSS. For 20X objectives or lower, the adapter L directly connects to either of these three eyepiece adapters, while the VANOX and PM-PSS do not require any eyepiece adapter for photomicrography with the OM-1 through the whole range of magnification.

- For Use with an Olympus Microscope



1. Attach the adapter L to the OM-1. The adapter L is attached on the camera in the same manner as the taking lens is attached.
2. Determine the magnification. Picture magnification is determined by the formula below:

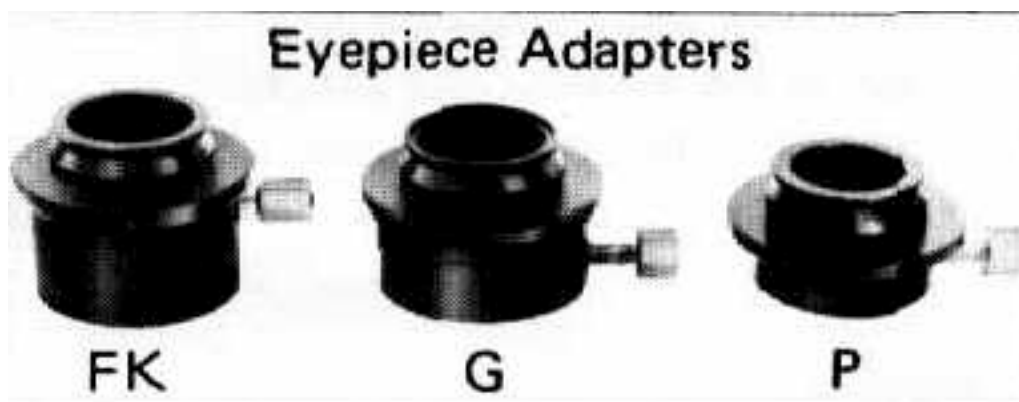
EYEPIECE	PICTURE MAGNIFICATION
FK	FK eyepiece power X objective power
P & G	P or G eyepiece power X objective power X approx. 0.5

3. Olympus microscopes require special eyepieces FK, P or G, as above. mentioned to be used with the OM-1 and adapter L for photomicrography. Their various combinations available are summarized as follows:

MICROSCOPES	EYEPIECES
<b>Universal Research Microscope</b> VANOX	FK
<b>Biological Microscopes</b> E&Fseries Kseries G&Hseries	FK&P FK&P FK&P
<b>Metallurgical Microscopes</b> MF&N	FK&P
<b>Stereo Microscopes</b> VB series SZ X X-Tr JM JM-Tr	G G G P G P
<b>Fluorescence Microscope</b> FLM	FK&P
<b>Biological Microscope</b> (for tissue culture) CK	FK&P
<b>Polarizing Microscopes</b> POM&POS	FK&P
<b>Microspectrophotometer</b> MMSP	FK&P

**NOTE:**

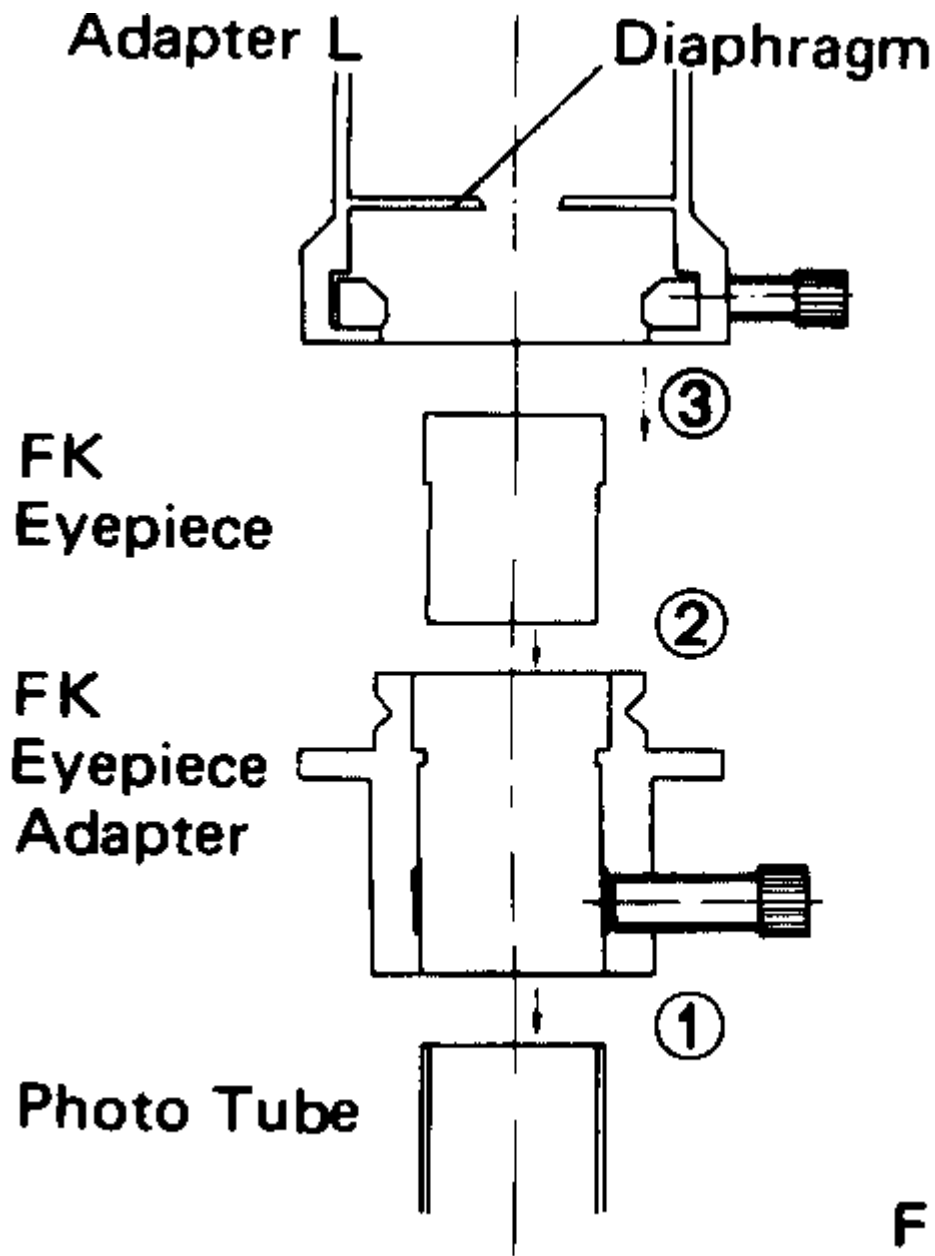
- 1) When both FK and P eyepieces are applicable, however, it is preferable to use FK than P eyepieces, since the FK is specially designed for photomicrography.
- 2) Only the objective has the resolving power, and the eyepiece serves merely to enlarge the image resolved by the objective. When the total magnifications are same with different combinations of eyepieces and objectives, the finer resolving details of the subject can be obtained by the larger objective power.



4. Select an eyepiece adapter according to the eyepiece in use.
  - o Eyepiece adapter FK for FK eyepieces
  - o Eyepiece adapter P for P eyepieces
  - o Eyepiece adapter G for G eyepieces

**NOTE:**

The VANOX and PM-PSS do not require any eyepiece adapter.



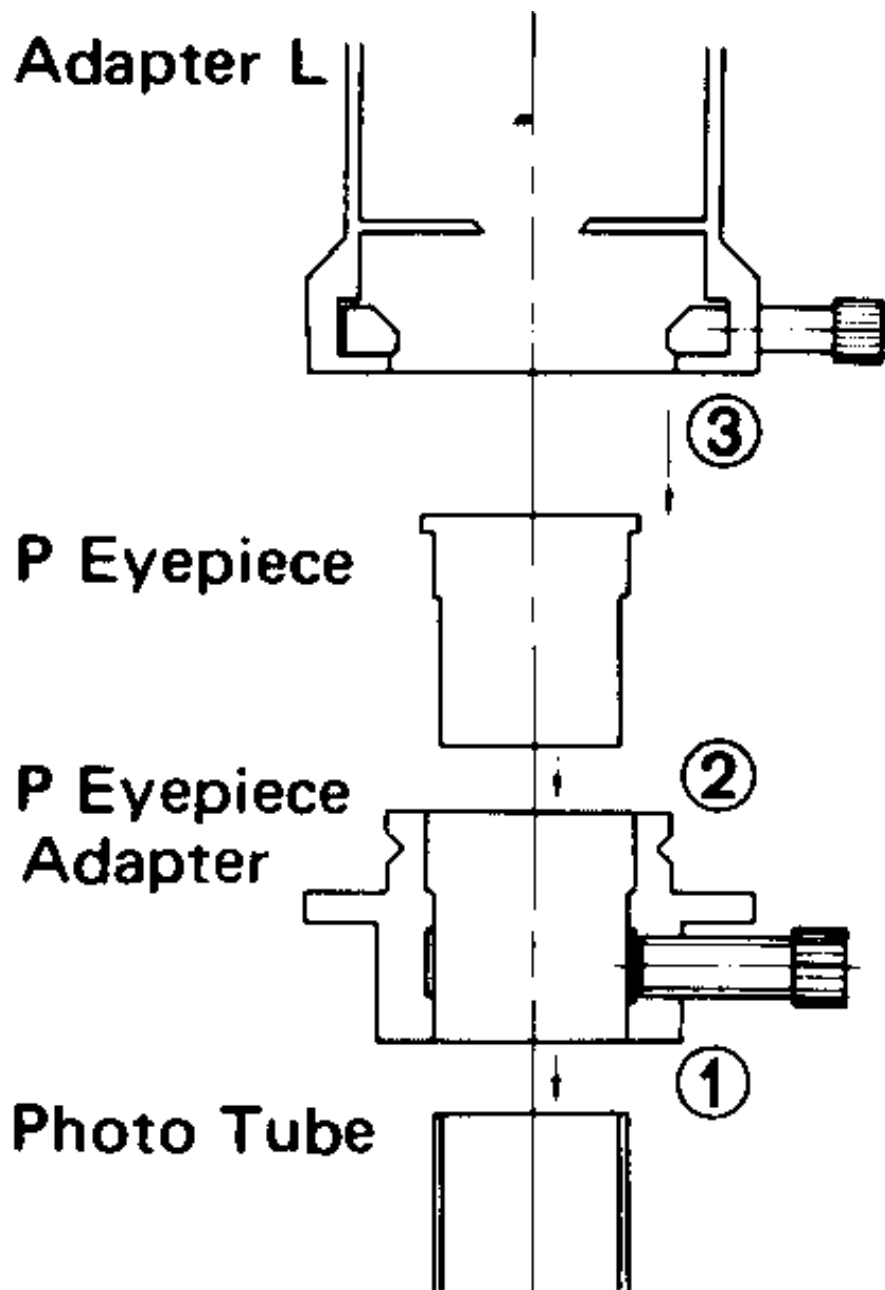
**Fig. 1**

**5. Mount the adapter L with camera on the microscope.**

After selection of the eyepiece/ eyepiece adapter combination, mount the entire camera assembly on the microscope in the following procedure:

- For FK eyepiece (Fig. 1)

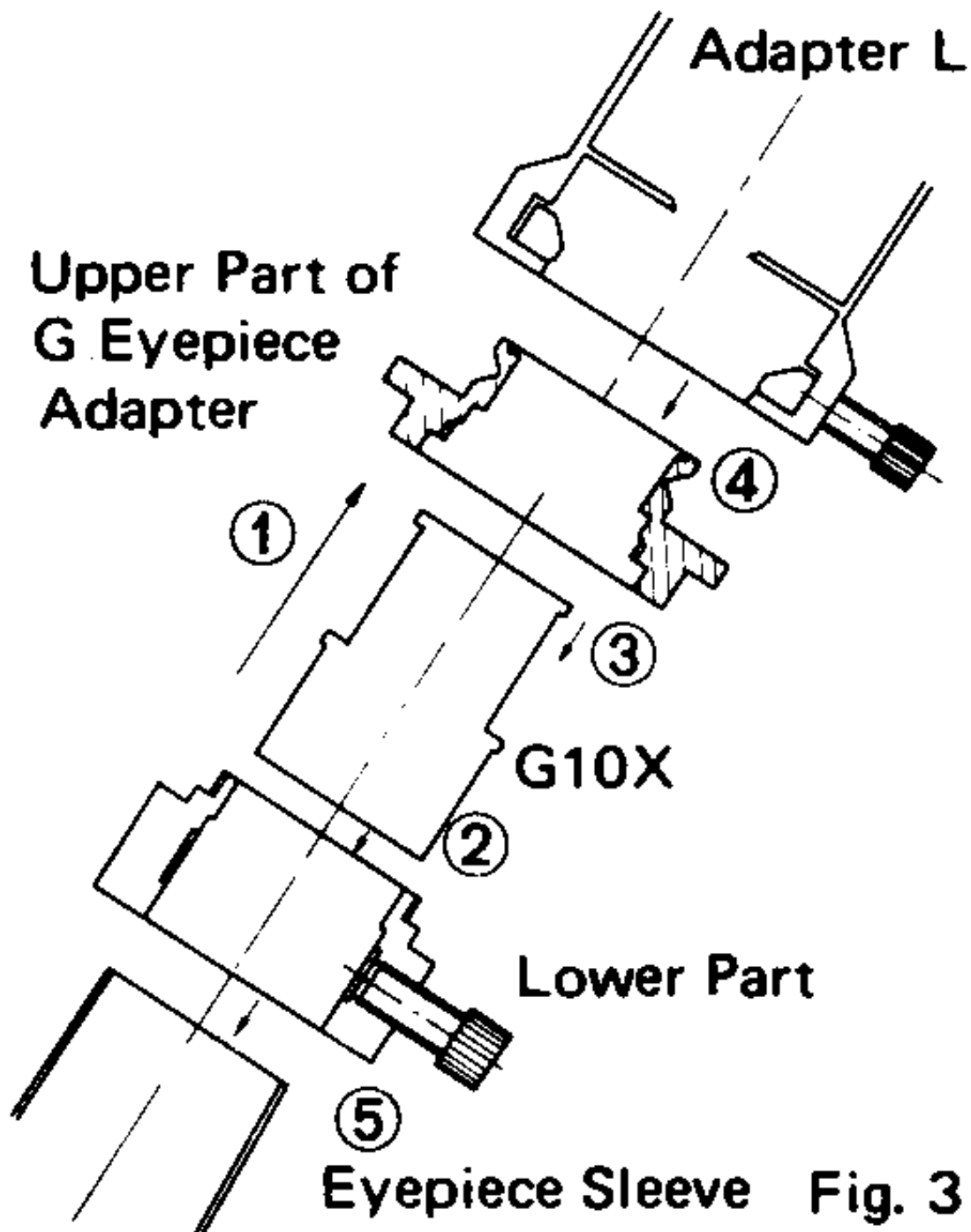
- 1) Attach the FK eyepiece adapter to the photo tube of microscope, and clamp with screw provided (Fig. 1-(1) ).
- 2) Insert the FK eyepiece of your choice into the FK eyepiece adapter (Fig. 1-(2) ), and put the adapter L over the FK eyepiece adapter all the way down (Fig. 1-(3) ), and clamp the entire camera assembly.



**Fig. 2**

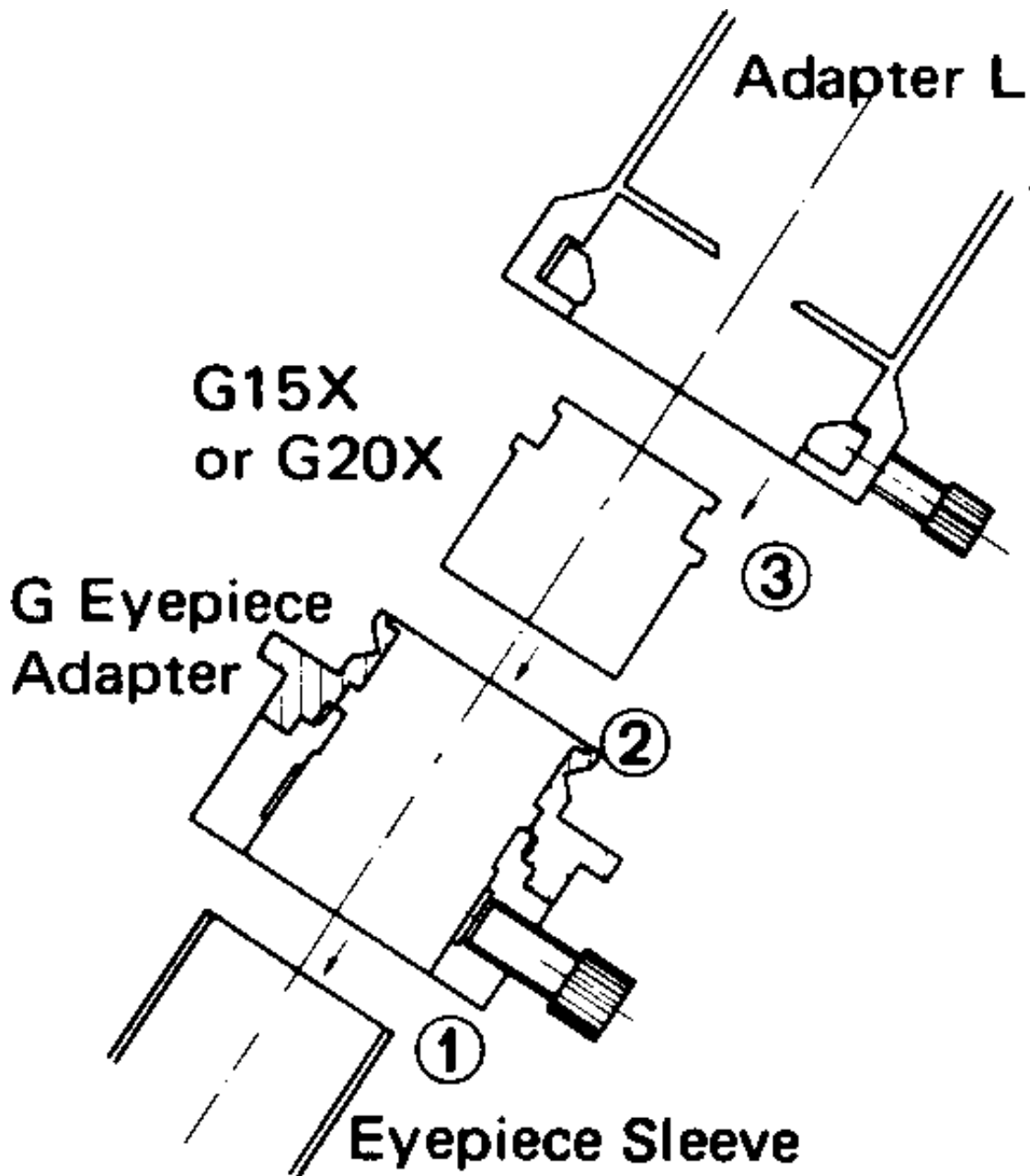
• For P eyepiece (Fig. 2)

- 1) Attach the P eyepiece adapter to the photo tube all the way down (Fig. 2-(1) ).
- 2) Insert the P eyepiece into the photo tube (Fig. 2-(2) ).
- 3) Pressing down the eyepiece against the photo tube slightly, raise the eyepiece adapter until it is in contact with the eyepiece flange (be careful the eyepiece flange is in contact with both the photo tube and eyepiece adapter) and lock the adapter firmly with clamping screw.
- 4) Put the adapter L over the eyepiece adapter all the way down (Fig. 2-(3) ), and clamp the entire camera assembly.



- For G10X eyepiece (Fig. 3)

- 1) Unscrew the upper part of the G eyepiece adapter (Fig 3-CD), insert the G10X into the lower part (Fig. 3- (2) ), and rescrew the removed part of the adapter (Fig. 3-(3) ).
- 2) Attach the eyepiece/eyepiece adapter combination to the adapter L, and clamp (Fig. 3-(4) ).
- 3) Insert the entire camera assembly into the microscope eyepiece sleeve all the way down (Fig. 3-(5) ), and clamp.



**Fig. 4**

- For G15X and G20X eyepieces (Fig. 4)
  - 1) Attach the G eyepiece adapter to the eyepiece sleeve, and clamp (Fig.4-(1))-
  - 2) Insert the G15X or 20X into the G eyepiece adapter (Fig. 4- (2)).
  - 3) Put the adapter L over the eyepiece adapter all the way down (Fig. 4-(3)), and clamp the entire camera assembly.
- 6. Adjust the camera position.

If it is necessary to adjust the camera position, loosen the clamping screw provided on the adapter L, and rotate the camera into a position as desired, and re-clamp.

## **7. Focus**

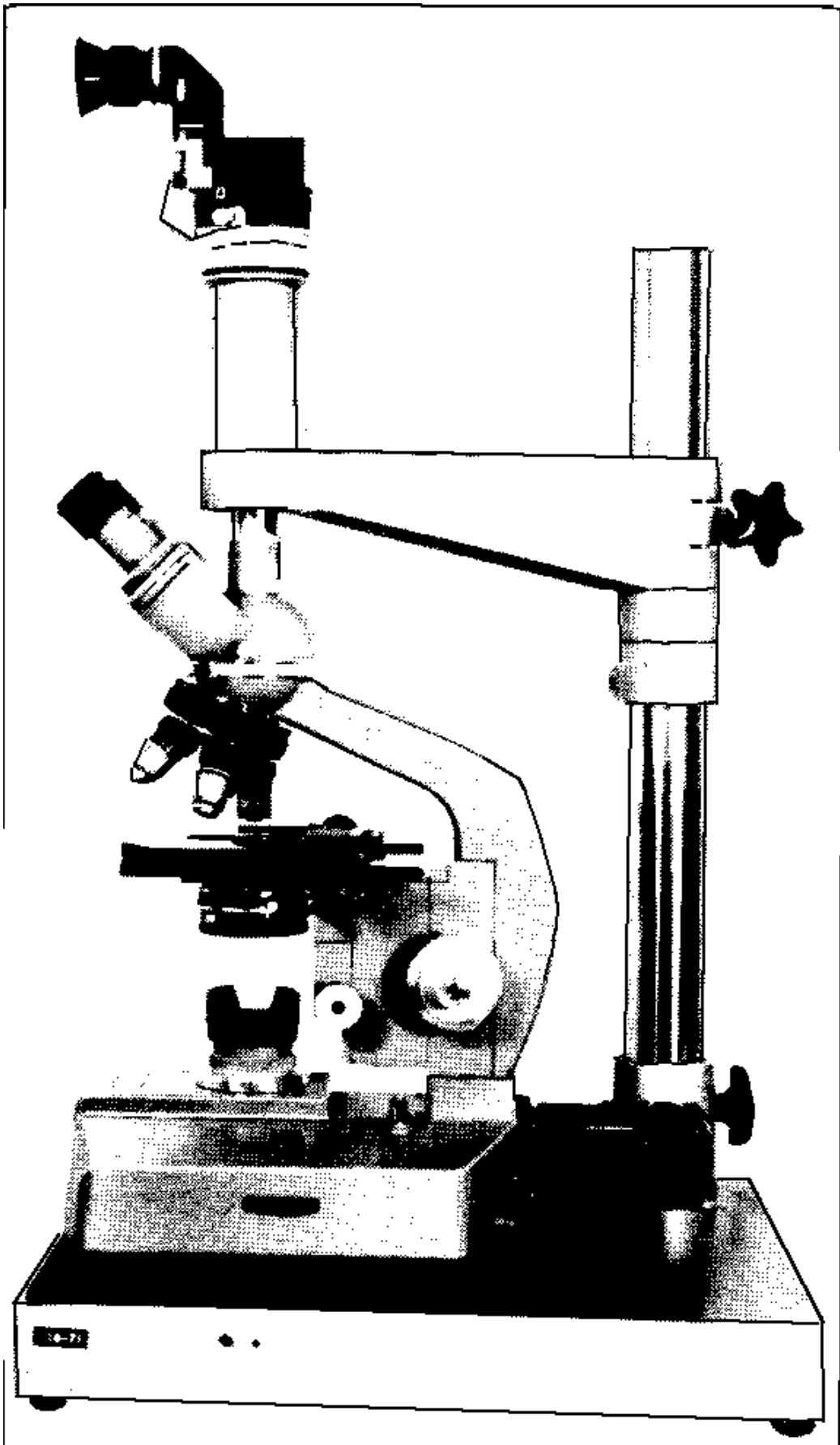
### **1) Focusing with the OM-System Focusing Screen (Cross Hairs-clear type No. 1-12)**

- (1) Use the OM-System Dioptic Correction Lens or the Varimagni Finder (optional) so that the double cross line within the field of view can be clearly recognized as two lines.**
- (2) Use the coarse and fine adjustment controls of the microscope to bring the specimen in focus. Check again if both the double cross line and the specimen are equally sharp in focus.**

## **8. Determine the exposure.**

- 1) Rotate the shutter ring or adjust light intensity by means of the light source or ND filters, until the needle in the viewfinder comes to the center of index marks.**
- 2) In most cases, it is advisable to rectify exposures in photomicrography, as follows:**
  - (1) When the object to be photographed in the field of view is extremely small, set it for overexposure.**
  - (2) When the most area in the field of view is dark and contrast of brightness is high, adjust for under-exposure.**





- **For Use of Photomicrographic Stand PM-PSS**

For setting of the microscope on the PM-PSS, as photographed above, please read the instructions provided with the stand, and then take the following steps:

1. Place the microscope on the base of the PM-PSS, so that the photo tube comes right under the camera supporting arm.
2. Insert the eyepiece into the photo tube.
  - 1) For FK eyepiece  
Put the light shield tube on the microscope photo tube, into which the FK eyepiece of your choice is inserted slowly.
  - 2) For P eyepiece  
Insert the P eyepiece of your choice into the photo tube without the sight shield tube.
3. Looking through the camera mounting hole in the arm, lower the arm until the eyepiece comes into the hole (if necessary, touch up the microscope position so as to accurately center the eyepiece in the hole).
4. Loosening clamping screw provided on the adapter L, put the adapter L over the camera mounting hole, and clamp.
5. Lower down the arm slowly until it stops (at this height, the diaphragm inside the adapter L touches the top of the eyepiece).
6. Then raise the arm by about 1mm so that the adapter L floats off the eyepiece. Take care not to allow the periphery of the eyepiece or light shield tube in contact with the edge of the camera mounting hole. Then raise the collar to support the arm.
7. Mount the OM-1 on the adapter L.
8. Focus and exposure.  
Refer to Para. 1 for "Use with an Olympus Microscope."