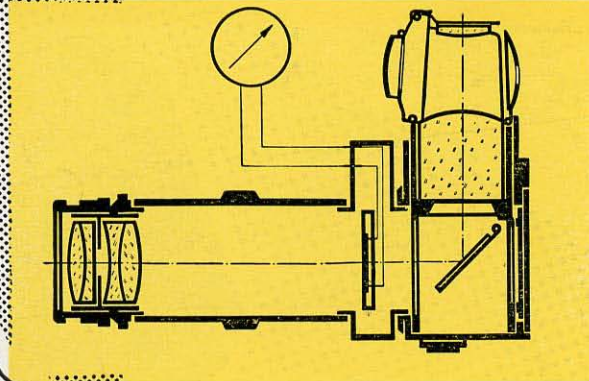
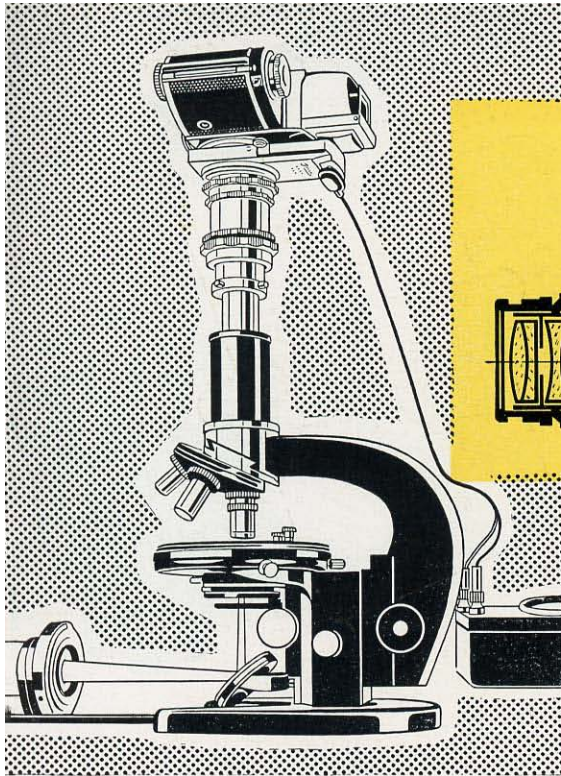




The Ihagee Macro-Micro Photometer

When undertaking macro- or microphotography the determination of exposure is inevitably difficult. For instance, when employing concentrated lighting on small objects at close range the use of a conventional exposure meter is extremely limited, and indeed there may be no measurable deflection whatever. Equally difficult is the determination of exposure with a normal exposure meter, when the light source is passing through a microscope system. Herein serves the real purpose of I. M. M. P. which ensures a 100 % correct exposure.

Measurement of the light source is made at a point immediately in front of the camera body, and behind the rear lens element in macro-photography, or in the case of microphotography, immediately behind the microscope ocular. This is achieved with I. M. M. P. which bayonets in the normal camera bayonet ring. The unit has a second bayonet ring on the front plate which merely replaces that already occupied in securing the device, and which accepts, of course, any Ihagee lens or accessory, such as Microscope attachment, Vielseck bellows attachment etc., etc. In use the unit effects a 20 mm extension, and this naturally must be taken into account when determining overall image scale of reproduction.



In order to measure actual light intensity in the camera, a selenium cell element is lowered into the central light beam. At this stage the release button of the EXAKTA Varex is automatically locked, so preventing accidental exposure. The

selenium barrier layer cell is thus light energised and with the aid of a normal pattern micro-ammeter or light galvanometer a reading can then be taken. (An effective range $5 \dots 30 \mu\text{A}$, inner resistance $1000 \dots 5000$ ohms can be measured.) The connection between the I.M.M.P. and the electrical measuring instrument is by means of a cable, for which two contacts are provided near the top of the I.M.M.P. So it will be appreciated that an initial evaluation of light measurement readings will provide a series of correct exposure times. Future work may therefore be undertaken and correct exposures obtained by reference to this pre-determined data assuming the film used to have the same emulsion speed rating. Final exposure control is obtained by variations of the iris diaphragm or light intensity. The I.M.M.P. is the complete answer not only for Micro- and Macrophotography – as already stated – but also for other specialised work, including the copying of dia-positives. Working in the prescribed manner with the aid of a suitable light measuring instrument, all normal lens extension calculations are automatically computed.