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S.E.I. Photometer accessories for densitometry

The S.E.I. Exposure Photometer is described fully in the Instruction Book supplied with the instrument. The present book describes accessories which provide a means for conveniently using the S.E.I. Photometer as a densitometer for transparencies and reflection images. Negatives and prints from miniature size upwards may be accommodated.

The Densitometer Accessories comprise :—

1. Densitometer Supplementary Lens Attachment, to focus the photometer on to the negative.
2. Densitometer Illuminator, containing transformer, 6-volt lamp, opal diffuser and cradle to support the photometer.
WARNING : This apparatus must be used only with A.C. Main Electric Supply.
3. External Supply Adaptor, to convert the photometer to mains operation.

General arrangement

The general arrangement of the photometer and accessories is shown diagrammatically in Fig. 1, and their actual appearance in Fig. 2.

The photometer is mounted in a cradle on the *Illuminator* so that its telescope points at a white diffuser which forms a window in the top of the illuminator box. The diffuser is illuminated from inside the box by a small lamp whose distance from the diffuser can be varied; thus the brightness of the diffuser can be adjusted. The telescope of the photometer is provided with a *Supplementary Lens Attachment* (Fig. 7) which carries a lens of such a power that the upper side of the diffuser can be focused in the eyepiece. This lens is mounted in the upper part of a small extension tube, blackened on the inside and provided at its lower end with a diaphragm having a small circular opening through which the diffuser is viewed. The tube of the supplementary attachment is provided at its lower end with a cut-away window for use in making density measurements of reflection images (see page 7). This window is provided with a sleeve by which it can be closed.

The *External Supply Adaptor* (Fig. 8) takes the place of the normal battery container and lamp used for exposure estimation. It consists of a tube to fit inside the body of the photometer and carries a lamp to illuminate the comparison 'spot' of the photometer.

The two lamps are of the same type and wattage, 6-volt 6-watt. They are fed on parallel circuits from a small transformer which is mounted in