The Bausch & Lomb

NICHOLAS ILLUMINATORS

Cat. No. 31-33-51
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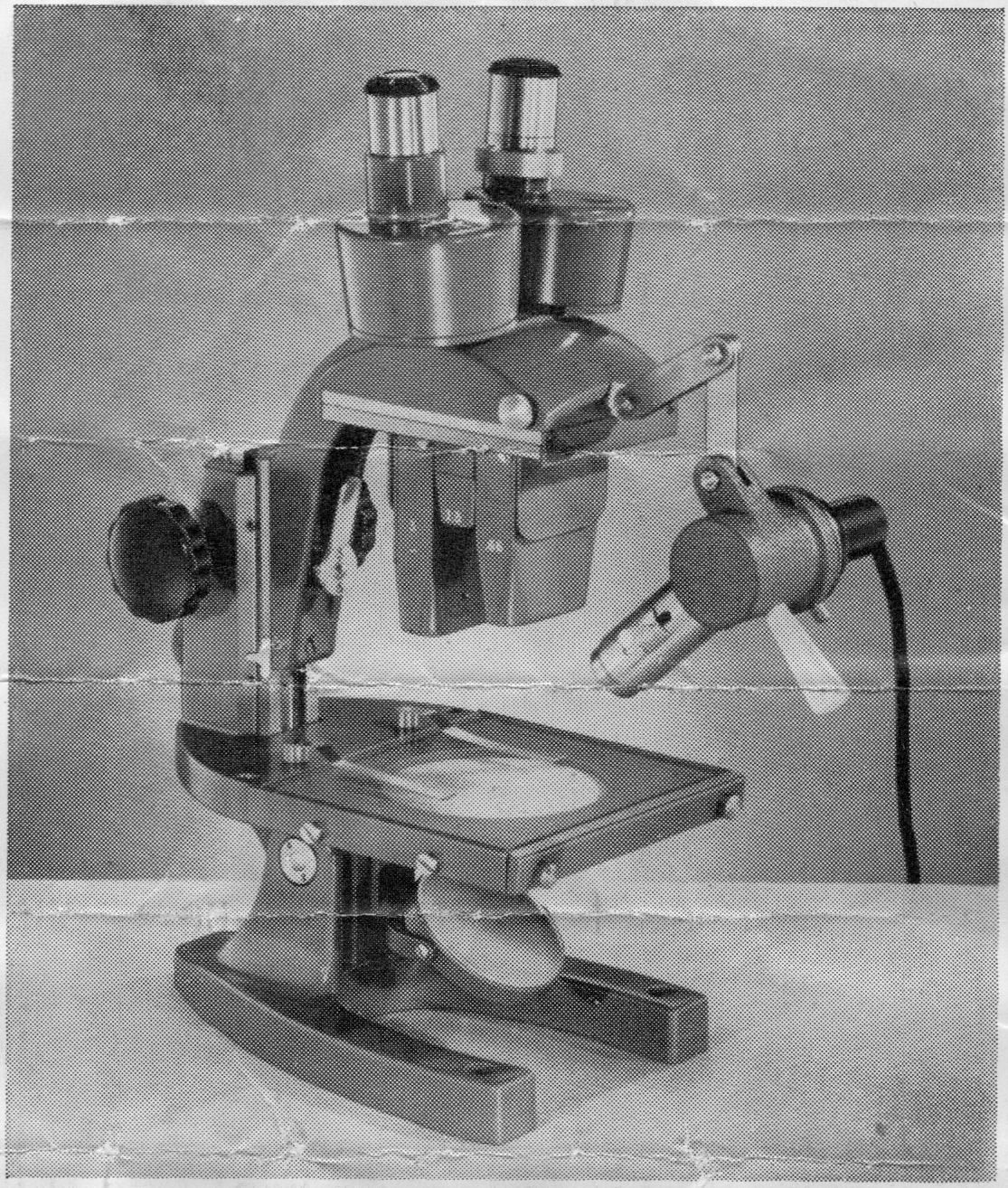
Directions for Use

BAUSCH & LOMB
OPTICAL COMPANY ROCHESTER 2, N. Y.



Nicholas Illuminator in use on a Bausch & Lomb Stereomicroscope

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The Nicholas Illuminator uses a 6 volt lamp. Be sure to connect into the proper resistor or transformer, not directly into the 110 volt line. The resistor can be used for either A.C. or D.C. The transformer can be used only on A.C. If you use a transformer, be sure that the line is A.C. of the frequency designated on the transformer name plate and not D.C. A transformer connected into a D.C. line will either blow a fuse or damage the transformer.

Having properly connected the illuminator, turn on the switch, and insert the

supporting end of the hinged bracket into one of the holes provided, either in the microscope or in the illuminator base.

The illuminator is designed primarily for use with the Bausch & Lomb Stereo-microscopes, as these microscopes are provided with one or more holes or sockets in which the illuminator arm can be mounted. For general use the hole in the nose-piece is recommended, since the illuminator then rises and falls with the focusing of the microscope, and the illumination remains centered regardless of specimen thickness.

The unit can be used with other microscopes too, but must then be used on its own base.

The Nicholas Illuminator can be best adjusted by focusing the movable lens all the way *in*, giving the largest spot of light. Then move the whole illuminator by means of the hinged arm until the illuminated spot is just sufficiently large to fill the field of the lowest power objective and eyepiece

combination. The illuminator position can then be left alone, and in going from one magnification to another, only the focusing lens need be moved to obtain maximum brilliance and completely even illumination at each magnification.

To get grazing or almost grazing illumination in order to bring out surface details, the illuminator may be inserted in one of the holes at the tips of the horseshoe base.

Other oblique lighting effects can be achieved by inserting the mirror in any of the holes which take the illuminator posts, and directing light from the illuminator onto the specimen at an angle. For top oblique lighting mount the mirror in one of the stage holes; for bottom oblique, in one of the holes in the horseshoe base.

To replace a burned out lamp, loosen the small thumb screw which holds it in the lamp housing and pull the socket outward. Grasp the socket in the left hand and the lamp in the right hand and twist the lamp counterclockwise until it springs loose. The

new lamp is replaced by the reverse of this operation, pressing down on the lamp so that the flange engages under the 3-point locking device. The 3 points are not evenly spaced, so there is only one possible orientation for correct engagement. Trial-and-error will quickly determine the correct orientation. For lamp replacement specify No. 31-31-79.

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