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Police Science Technical Abstracts and Notes

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POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

M. Edwin O'Neill

Transmitted Light Table

Ordway Hilton†

The transmitted light table recently built for the Chicago Police Scientific Crime Detection Laboratory embodies a number of features which may be of interest to document examiners and technicians of other laboratories. These features have been included in the table so as to form a convenient piece of apparatus which is adaptable to all types of transmitted light work.

General Design: The table was designed for working at stand-up height (39 inches) with ample work space around the actual light area. (See illustration.)

shielded with light baffles so as to prevent the escape of light into the room during examinations.

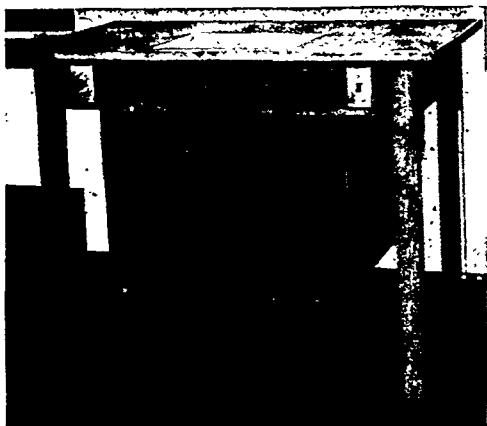
Light Area: Three metal slides are provided to reduce the aperture beneath the plate glass. These are actuated by means of rack and pinion drives controlled by knobs on the front of the table. By such means the light aperture can be reduced from 11 x 14 inches to $\frac{1}{2}$ x $1\frac{1}{2}$ inches, and any intermediate sizes can be obtained. This eliminates any need of masking the glass with cardboard or black paper, thus interfering with the working area.

Light Sources: Two independent light sources are provided for examinations: one, a bank of fluorescent tubes; the other, a thousand watt tungsten lamp.

The bank of fluorescent lights consists of four 20 watt tubes located beneath the plate glass opening at the bottom of the light box. (approximately 24 inches below the glass). These are operated on an A.C. circuit and controlled by means of the switch located at the right end of the table. This source gives a good quality light of medium intensity and is ideal for work involving negatives, examination of watermarks, and writing on thin papers.

As a high intensity source of light which is more suitable for some types of document examinations, such as ink crossings, smeared-over writing, and writing on thick paper, a thousand watt tungsten lamp is provided. This is mounted on a base which slides above the fluorescent tubes and can be moved to the back of the box when not in use. It is wired on a separate circuit with the switch located at the left end of the table.

Four slides are provided near the top of the box (from 8 to 11 inches below the plate glass) upon which diffusing glasses can be placed. Generally a single sheet of ground glass is used on one of these slides to diffuse the light from the thousand watt source. This also can be used with the fluorescent lights, although with this latter type of illumination a diffusing glass is not absolutely necessary.



TRANSMITTED LIGHT TABLE IN USE AT THE CHICAGO POLICE SCIENTIFIC CRIME DETECTION LABORATORY. (Cabinet work and installation by WPA Illinois Art & Craft Project.)

(The dimensions of the table top are $2\frac{1}{2}$ x 5 feet.) This space allows an uncrowded lay-out of equipment which might be needed in the course of transmitted light work. The open light area is centered near the front of the table and has a maximum aperture of 11 x 14 inches which is covered with plate glass set flush with the top of the table.

The light source is housed in a metal box suspended below the table. A hinged door is arranged at the front of this box so as to allow easy adjustment of the lights. Ventilation is provided by means of openings at the bottom and on either side of the box. These openings are

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