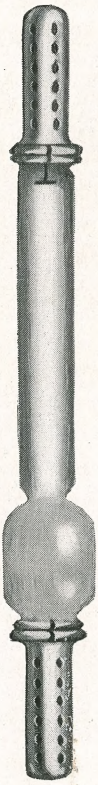
UVIARC LAMPS

IN THE

LABORATORY



COOPER HEWITT ELECTRIC CO.

HOBOKEN, NEW JERSEY

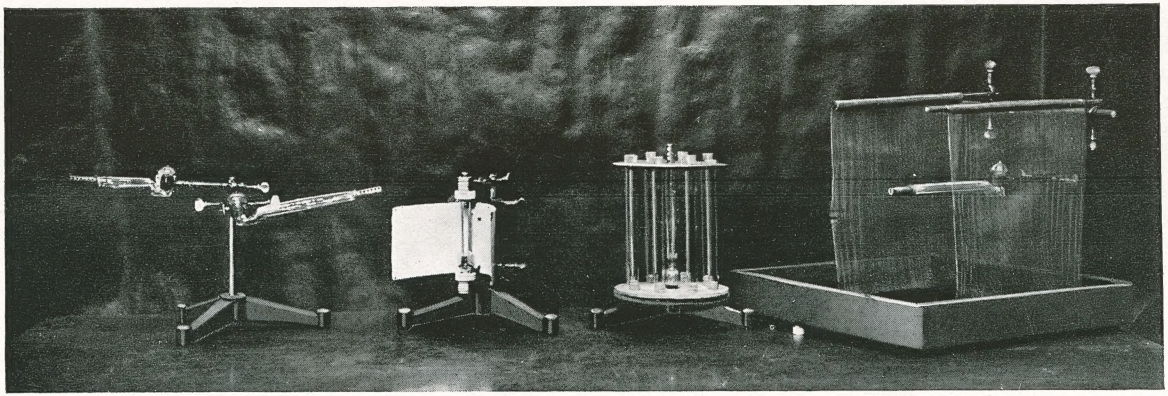


Fig. 1. Illustrating a method of supporting horizontal Uviarcs in laboratory clamps, of using a vertical Uviarc with a cylindrical parabolic reflector, of distributing quartz test tubes symmetrically around a vertical Uviarc, of raying liquids in thin agitated films by flowing them over screens.

Uviarc Lamps in the Laboratory

THE UVIARC is made of fused Brazil rock crystal, which is the best quality of clear crystalline quartz, and is especially prepared for high transmission of the ultra-violet. In operation there is an arc from a mercury cathode to a tungsten anode. At a mercury vapor pressure of one atmosphere this arc is concentrated into a narrow cord in the center of the arc tube and becomes the most efficient source of high frequency ultra-violet radiation available.

The Uviarcs are made in standard models as follows:

110 V.—450 watt, 3″ arc, horizontal
110 V.—450 watt, 3″ arc, vertical
220 V.—900 watt, 6″ arc, horizontal
220 V.—900 watt, 6″ arc, vertical.

The uses to which the Uviarcs may be put in laboratory experimentation are so varied that no one apparatus or method can be specified. For general use, however, a simple but effective Laboratory Outfit is made, Fig. 2, and the lamp holders will take any type or size of Uviarc. A removable hood is provided for this lamp. The lamp and hood is universally adjustable in all planes and adaptable to a great variety of laboratory and factory uses. A light-tight filter holder carries a Corning G586AW filter and is of value in the study of fluorescence.

In the auxiliary device provision is made for operation upon direct or alternating current, the direct current auxiliary being shown in Fig. 2. A rectifier-auxiliary for alternating current, 110 or 220 volt, operation is also used with the Laboratory Outfit in which case the 220 volt size of Uviarc is usually used.

To operate the Uviarc out of the Laboratory Outfit holder, as in Fig. 1, it is only necessary to extend the lead wires from this outfit to the lamp, making sure that the polarity is correct.

Where necessary either horizontal or vertical Uviarcs may be operated as much as 45° from their normal operating position.

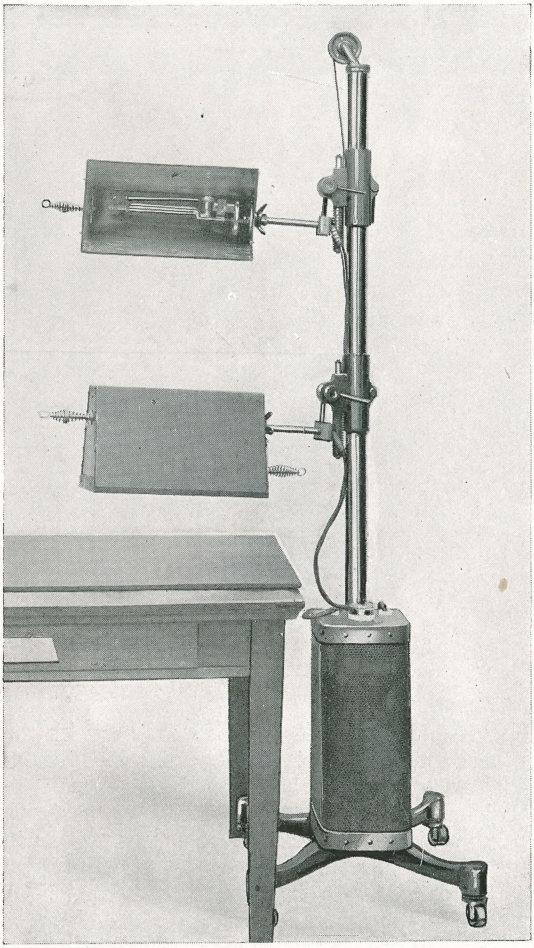


Fig. 2. Uviarc Laboratory Outfit. Composite showing two positions of hood.