

## The Ultra-Violet Ray Lamp

**R**ADIATION CONSISTS not only of those rays having wave-lengths such as to produce the effect of vision upon the eye, but also of others of greater wave-length than the red rays and less wave-length than the violet. The spectrum from such a source consequently includes, besides the luminous part, an invisible part below the red, called the infra-red region, and another beyond the violet, called the ultra-violet. These invisible rays may, however, be examined by suitable apparatus producing the ultra-violet or infra-red ray. The former are produced by passing an electric current through a bulb containing metallic mercury, which vaporizes and emits the valuable rays.

The ultra-violet ray lamp is rapidly increasing in importance and value to persons engaged in the scientific detection of crime; with it, stains on clothing or walls may be examined which are invisible to the naked eye. Materials such as fibre, metal, glass, or any other article where fluorescence is a deciding factor may be matched for similarities or compared with a standard.

Cases are on record where the lamp has been used successfully in establishing points of similarity between glass found at the scene of a fatal auto accident and samples of glass removed from the headlight of the car alleged to be the cause of the fatality. Instances of dangerous drugs being bottled and labelled to represent some harmless preparation for the purpose of misleading the police have been readily detected by the use of the ray. Stains on clothing have also been detected in spite of the fact that the garments have been washed or cleaned.

