



Rear projection at the London Coliseum for *The Flying Dutchman* using Optical Effects projectors.



School Theatre lighting. Tupton Hall Comprehensive School.

The **Bifocal Spot** is a unique Rank Strand instrument similar in principle to a standard profile spot, except that the gate is fitted with two complete sets of four shutters. One set with black operating knobs gives the usual hard profile framing, the other with red knobs is situated out-of-focus and has vignetted edges in order to give soft framing. The beam can be shaped with either set or a mixture of both. For example, hard along the front of the stage and edge of the proscenium, and soft upstage and onstage.

Optical Effects Projectors are similar to the Profile spots, although a condenser lens system is used in preference to a reflector as the principal collector of the light. A condenser lens system gives the more accurate field required for slide and optical effects projection.

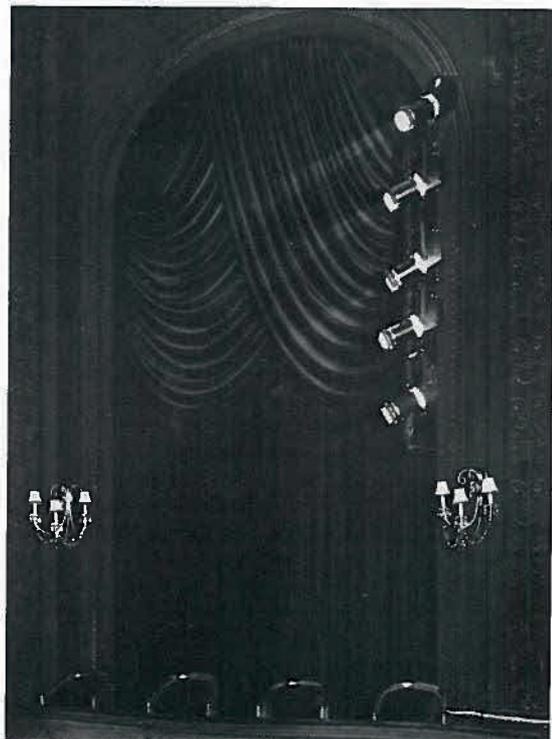
Rank Strand manufacture two principal optical projectors—the 2000-watt size used mainly for moving effects such as clouds and flames, and the 4000-watt 110-volt high-intensity projectors which, when used with high definition Dallmeyer lenses, are used as scene or background projectors. There is a full range of moving effect devices for the 2000-watt and 4000-watt units which use photographic reproduction on toughened glass giving a very high standard of picture. In addition there are a number of psychedelic effects each capable of considerable variation of the image.

Lamp Developments have recently provided increased efficiency and/or longer life. The Tungsten Halogen, sometimes referred to as Q.I. (Quartz Iodine), lamp now becoming available in certain wattages is a filament lamp whose principal characteristic is longer life and maintenance of light output without yellowing throughout that life. Some forms are interchangeable with existing lamps while others require special lampholders and particular Rank Strand lanterns may be for the new tungsten halogen only. This also applies to the extremely efficient Compact Source Mercury Halide (C.S.H.) lamps. Increases of light source output of over three times can be obtained for the same wattage. The light is of great intensity and of a quality which makes it particularly suitable for high intensity follow spots or for effects projection. Dimming by

the common method of dropping the line volts is not, however, possible.

With the exception only of effects projectors all the lighting units described and illustrated are supplied with a frame for a colour filter. The Rank Strand 'Cinemoid' range of over 60 different colour filters is renowned throughout the world and has replaced the old gelatine and fragile coloured glass. 'Cinemoid' is exceptionally durable, impervious to moisture, and self-extinguishing even when deliberately set alight by prolonged contact with a naked flame.

A particular feature of stage and television lighting is the need to bring all circuits to a centralised control board and the remarkable range of Rank Strand **Lighting Controls** using Thyristor dimmers is described on pages 10 and 11.



Bifocal spots, front of house, Piccadilly Theatre, London.