

filters, scrims, scenic projectors, lenses, and so forth have been the subject of staging experiments through the centuries, but mainstream theatres' control of light until the age of gas was limited to primitive fade-outs by twisting vertical pole-mounted lamps away from the stage or lowering footlights into under-stage traps. Even so, the eighteenth- and early nineteenth-century stage was intrinsically a very atmospheric place. This was assured by the low levels of light plus the low degree of visual expectation of an audience who knew nothing of later generations' sophisticated experiences of the mechanical media.

Gas brought a tremendous increase in the fluidity of lighting control. The intensity of the light sources in the various parts of the stage could now be subjected to relatively fine control from a central "gas table" with individual valves to control the flow of gas to the burners. Thus by means of footlights, overhead border lights, and wing lights a general illumination of variable intensity could be achieved all over the stage. This could be selective in a rather primitive way, mainly by splitting the stage into front or back rather than left or right. This general illumination could be tinted by adding coloured screens — fairly simple in sidelights at stage level but involving the use of rather complex mechanically operated screens in the overhead lights. These complexities gave little opportunity for fluid colour mixing. Within this general illumination, there was a possibility of selecting or highlighting by means of limelight with its intense beam produced by an oxyhydrogen flame impinging on a block of calcium.

When electricity began to replace gas as the light source, there was little change in lighting techniques. By splitting the footlights and overhead border lights into alternating circuits of three or four colours, it became easier to mix colours, but the palette still gave a series of all-over relatively unselective light. The electric arc replaced the limelight, but it was used in the same way, namely to highlight within a general soft all-over coloured illumination.

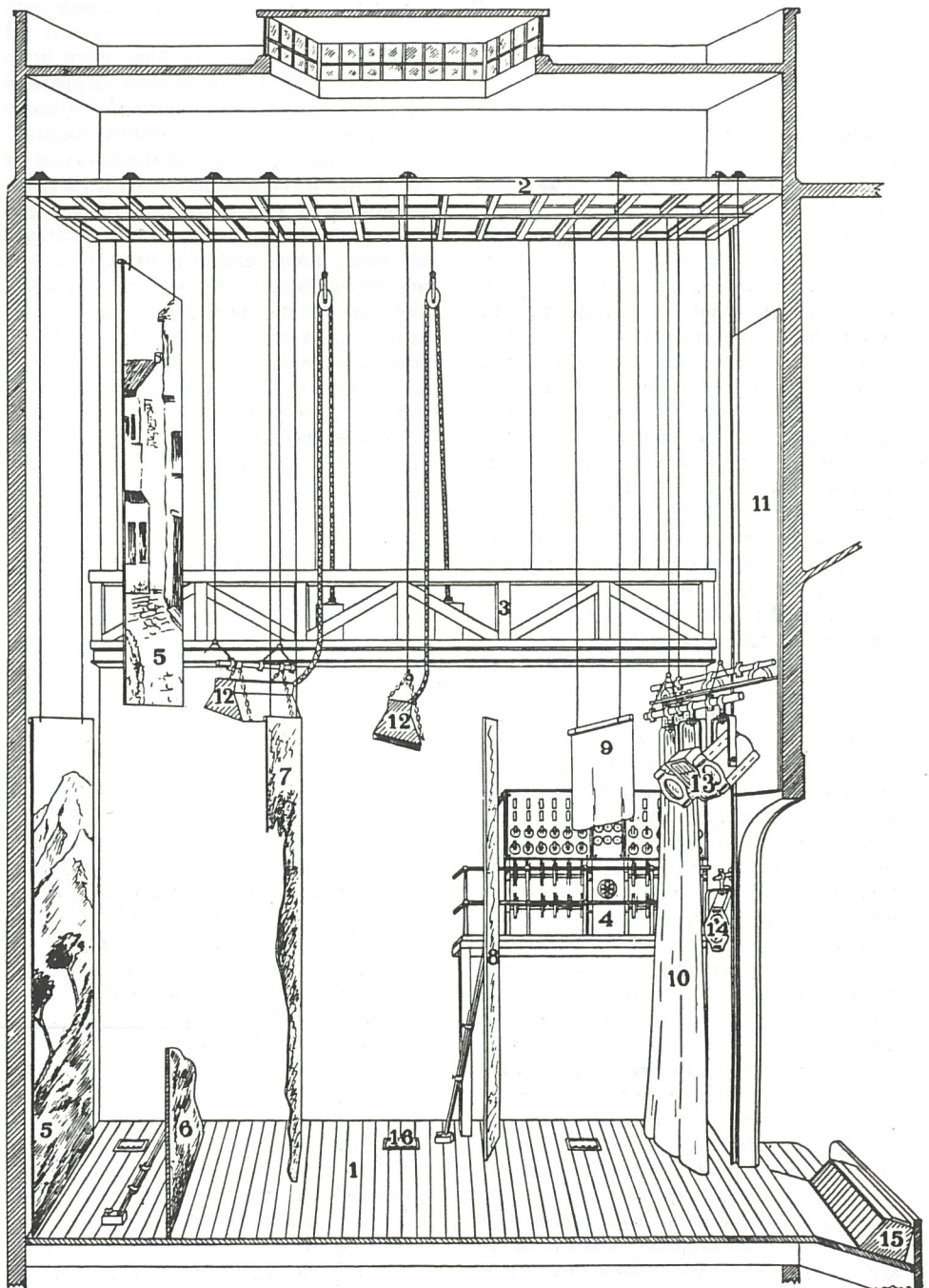
Mainstream stage lighting at the turn of the nineteenth century into the twentieth was therefore an application of electricity to the techniques of the gas-lit stage. Gas was still in use as the main illumination in many minor theatres in 1900 and was to continue as standby lighting for some years in many grander theatres. Indeed, a 1901 handbook of practical gas fitting included a chapter on "How to fit a theatre throughout with gas." This section is a very comprehensive account with details of how to make all necessary equipment from piping of standard diameter. Any self-respecting gas fitter expected to construct everything on site rather than buy from the specialized theatrical suppliers that were to arise in the early years of the century and stimulate the development of a new technology.

The following description of the lighting of a scene in Herbert Beerbohm Tree's 1910 production of *King Henry VIII* by Shakespeare (or perhaps it would be more correct to say "based on a play by Shakespeare") is taken from Michael R.

Booth's *Victorian Spectacular Theatre, 1850–1910* (1981). The light sources could be electricity or gas: the word *lime* was taken over in English theatre terminology from the original oxyhydrogen limelight to include the arc and any form of operator-controlled following spotlight. The most sophisticated discharge-lamp follow spots of today are still referred to as *limes*. Booth writes: "Twenty-one limes were called into

action, all with dark amber gelatines. Two were kept on the King, one spot and one flood, and five (two spots and three floods) illuminated the Queen's chair, the central area in which she moved and, presumably, her attendants. Another lime was saved for Wolsey (none for Campeius), 'faint' on the Cardinal's chair before he occupied it, stronger as he took his place. The bishops had to be content with a single flood be-

*Cross section through typical mainstream theatre using painted scenery and borders. Lighting by footlights and overhead battens with mainly flooding equipment, giving washes of light. The few spotlights were used for highlighting special moments and significant areas. Section drawing from "Stage Lighting Principles and Practice" by Ridge and Aldred (Pitman 1935).*



REFERENCES—

1. Stage.
2. Grid.
3. Fly Gallery.
4. Stage Switchboard.
5. Back cloths.
6. Ground row.
7. Cut cloth.
8. Wing supported by adjustable brace.
9. Border.
10. Draw curtains.
11. Safety curtain.
12. Compartment type batten with "tripe" and connector box.
13. Unit type batten with spot and flood lanterns.
14. Proscenium spot lantern.
15. Footlights.
16. Stage dip traps.