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Lamps and Lighting

From George E. Simons
General Electric Company
A Century of Progress
Chicago, Illinois

New lamps and lights that promise to become equal in importance to those in common use today are being shown to the public for the first time in the General Electric exhibit at A Century of Progress this summer.

A two-filament incandescent lamp which is used in a special socket to provide three levels of light intensity is one of the newest developments for commercial and industrial illumination. One filament gives the light of a standard 150-watt lamp and the other equals 200 watts. Both filaments may be burned at one time for high-intensity illumination.

Shown in the company's House of Magic last year as a laboratory experiment, the sodium-vapor lamp is presented this season as a finished commercial product already in use for street and highway lighting. Three to four times as efficient as the incandescent lamp, it is readily adaptable to outdoor lighting where color distinction is unimportant. The largest sodium lamp yet built -- for 10,000 lumen output -- is displayed with another new gaseous lamp, the first installation of which has been made at the Fair. The latter is a 16,000 lumen high-intensity mercury lamp that gives a crystal-white light.

The light source for the mercury lamp is in a glass tube about one inch in diameter and six inches long. To provide

an insulating space to make its operation independent of weather conditions, the small tube is enclosed in a glass envelope two inches in diameter and twelve inches long.

A decorative lamp that might seem to make it possible to sell light by the yard, the world's smallest incandescent lamp -- the "grain o' wheat" used in surgical instruments -- and the world's largest usable lamp of 50,000 watts capacity are shown with lamps of historical interest in the presentation of the "Romance of Lamps and Lighting". This little demonstration, in a small auditorium, is a new feature of the General Electric Company's exhibit this year.

Illuminating engineers from the company's laboratories show world's fair visitors what light is, and how the colored lights of various wave lengths combine to make white light. The effects of color light on colored paints are demonstrated, and new and unusual uses for artificial light are pointed out.

How lighting can alter the expression of the face of a statue -- even to the point of making it appear to laugh with rapid changes of light -- in one of the acts which precedes a demonstration of the new sight meter by which a visitor may select the intensity of light best suited to his eyes. New lamps and old, modern electric lights and oil lamps of the stone age are all there. They are all performers in the light show that is presented every half hour near the center of the Electrical Building.