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A Century of Progress
Chicago, Illinois

House of Magic

Guns that shoot lights on instead of out, light that you can hear, and sound that you can see, are only a few of the mystifying demonstrations of electrical phenomena presented in General Electric's House of Magic at A Century of Progress this summer.

A half hour program in the company's little air-conditioned theatre in the Electrical building is a revelation of the behavior of the elusive electron as it has been studied by scientists in the General Electric Company's research laboratories. Novel and startling effects of electrons under control are the basis of the presentation planned to show World's Fair visitors the newest knowledge of electricity and some of the unusual tasks to which it can be assigned.

High frequency current performs to show how it can be used by physicians to literally burn the disease germs from a human body without injuring the patient. To demonstrate, William A. Gluesing, in charge of the House of Magic, uses two electrodes immersed in cold water. Between the jars of water he sets a small jar of pop corn which is popped by the high frequency current without heating the water in the outer jars. In the inductotherm, high frequency current is used again, this time to burn steel wool, to produce a discharge from a fine steel wire which is fused and destroyed, or to light an ordinary incandescent lamp without wire connections held in his hand. The high frequency devices demonstrating electrical novelties need only slight modifications to make them useful to the medical profession in combating illness, according to Magician Gluesing.

Electron radiation which has not yet been brought under control is demonstrated by small particles of radium and uranium which are exposed to a device known as the Geiger counter. Loud pops from a speaker and amplifier connected to the counter indicate the uncontrolled disintegration of atoms of either substance. And immediately following, controlled electrons are brought into action to show how sound can be carried over a beam of light-- and to let you hear light that you can see.

A light gun, that reverses the order of the old wild west, is shot at a photoelectric target to turn on a signal light. Instead of lead or steel bullets, the gun, with its special optical system, highly concentrated light source, and trigger control switch, shoots a "bullet" or beam of intense light at the electric eye.

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Stroboscopic effects, common in old time movies in which wheels appeared to be turning backward, are introduced for the first time in two colors. Stroboscope lamps flash on and off 60 times every second, and stay on only about ten millionths of a second. A solid disc painted with various designs, whirling in the stroboscope light, appears to stand still, or to have several parts moving in opposite directions because you can see it only when the lights are on for the extremely short period during which no motion is apparent. With stroboscope lights in two different colors, multi-colored moving patterns are created.

Out of his electrical "bag of tricks" Magician Gluesing takes a picture of sound, and shows you what an orchestral selection looks like when each sound wave is transformed into a light wave that you can see on a small dark screen. Just to show you it can be done, he will light an incandescent lamp with a match, or use invisible light to let you see an invisible picture. Mr. Gluesing and his staff of four young scientists, Glenn Williams, Richard Mighell, Philip Icke, and Robert Smallman, explain their tricks as mere scientific novelties which may indicate some of the commonplace electrical applications of the future, but to the audience they seem to be more.