



New multi-preset switchboard developed by the Westinghouse Electric & Manufacturing Company.

New Multi-Preset Switchboard Developed By Westinghouse

MARKING an important advance in the mechanics of stage lighting is the multi-preset theatrical switchboard recently perfected in the Westinghouse Works at East Pittsburgh, Pa. The new stage theatre switchboard is declared quite revolutionary in character in that it permits the lighting effects for 20 different scenes to be present and then thrown on merely by the turn of a master switch. Because of the great number of present lighting effects, stage producers will be able to affect more perfect and beautiful lighting effects in the future and thus give theatergoers more novel entertainment than has been possible in the past.

The inventor of the new switchboard is James C. Masek, an electrical engineer in the service of the Westinghouse Electric Company. Mr. Masek has been a developer of theatrical lighting mechanics since his school days. The stage has always had a deep interest for him and it was quite natural that since he became an electrical engineer the electrical properties of the stage should have for him the greatest fascination.

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Even those who have been behind the scenes and have watched the stage electrician as he changes the lighting for every scene have often felt mystified at the great number of seemingly unrelated switches. Of course, when the lighting effects on the stage grow dim or when they change, it does not just happen. There are electrical devices behind the stage that are operated to produce these effects. The two principal devices or units are known as the dimmers which do to the lights what their name suggests and the switches which throw on or off combinations of colored light. The stage electrician must change

these combinations of lights and also their combinations with corresponding dimmers when the different scenes require different lighting effects. Thus it is always a mysterious process to the novice who sees the stage electrician jumping about from switch to switch seemingly without rhyme or reason and often to the accompaniment of harsh words from the actor or stage manager when he pulls the wrong switch and so spoils the lighting effects of a scene.

It was the maneuvering of the stage electrician behind the scenes which assisted Mr. Masek in perfecting his new invention. He felt that a system of switches could be devised to save all this more or less haphazard work and make stage lighting the most scientific part of the drama. With this idea in view, Mr. Masek sought to assemble the thousands of switches necessary to produce the various lighting effects in one unit and also to build this unit in such a manner that lighting effects once secured could be obtained again and again without trouble.

The multi-preset switchboard is thus the outcome of a love for the theatre and also an electrical engineering education. As the name suggests, Mr. Masek's switchboard makes it possible for the stage electrician to set in advance the lighting effects for all the scenes of any production. Then with the switch combination for the scenes set by merely turning a master switch he can produce instantly proper lighting effect for any scene without trouble and what is more important, without mistakes.

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Mr. Masek's switchboard permits the setting up of 20 different scenes, which is ample for the most intricate of modern stage effects. Twenty is not the limit of

the multi-preset system but is only the limit of the present board.

One of the most exasperating things that happen to a stage manager has automatically been eliminated by the new switchboard. This has been the set-up of lighting effects for a scene. It is well known that lighting the stage is one of the most important parts of the show. Stage managers spend hours with their electricians trying to find the proper lighting effects for the different scenes. These variations are carefully recorded and kept by the stage electrician. The stage manager, however, is absolutely at the mercy of his electrician during the show. If he forgets the "combination" for a certain scene its effect is lost. Because previously when the stage was "white" or, in less theatrical language, when the stage had no coloring effect, it meant that every other combination of lights was off and the electrician had to immediately set his other combination for the next scene. Thus working in the dark, and with oftentimes only his memory to guide him, the stage electrician has made many mistakes in lighting which has caused good stage managers and actors to use abnormal theatrical language.

In addition to speeding up the changes of lighting effects the new switchboards eliminate this hazard of mistakes in switching, for the scenes when once set can be left the same way for months at a time and only used when required.

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The enormous amount of work necessary in combining all the lighting effects in one panel can be appreciated by the fact that in one unit of this 20-scene switchboard are 1,900 switches, all designed so that variation of lighting can be secured. The 1,900 switches are in addition to the master switches, the switches for the dimmers and the myriad of other switches and connections necessary for the board. In operating this complicated device the electrician now does nothing more than throw tumbler switches and at times pull a master switch or turn the dimmers.