

CHASE'S ELECTRIC CYCLORAMA.

Despite their artistic value and the great cleverness employed in their construction, the most beautiful panoramas have got beyond the limits of success. Ceding to the taste of the day, one has been converted into a circus, another into a skating rink and still another into a bicycle track.

The invention that we are about to describe in a general way seems destined, if the hopes of the inventor shall be justified, to bring panoramas into fashion again and to assure them, in the future, new success and a less ephemeral existence.

The idea of Mr. Chase, a resident of Chicago, who has been working several years in the improving of his apparatus, turns to account the most recent progress and discoveries in the way of panoramic photography, projection apparatus, electric lighting, kinetoscopes, kinematographs and all other systems that permit of faithfully representing the phenomena of motion and life, as well as landscapes and views of inanimate objects.

The possibility of causing a large number of views to pass before the spectator within a very limited space of time, and of imparting life to them at will, gives a cyclorama a true animation and a remarkable diversity that is absolutely lacking in ordinary panoramas.

Mr. Chase utilizes an ordinary panorama, but one in which the spectators stand upon the floor of a cylindrical chamber 100 feet in diameter and 30 in height, upon the walls of which are thrown photographs placed in a projection apparatus suspended from the center of the ceiling, after the manner of a chandelier.

In Fig. 1 we give a general view of the panorama as conceived by the inventor, and as it was realized upon a smaller scale in 1894, with experimental apparatus, at the Chicago Fire Cyclorama. Fig. 2 shows the projection apparatus in its entirety. Fig. 3 exhibits the mode of construction of the suspended platform upon which are situated the operator, the projection apparatus, their carriages and the electric lamps that light such apparatus.

It will be understood that nothing is more easy than to convert an ordinary panorama into an electric cyclorama. It suffices to paint the back canvas white and to suspend Mr. Chase's projection apparatus in the center of the hall.

The apparatus, suspended in the center of the panorama by a steel tube and guys of steel wire (Fig. 3), is 8 feet in diameter and 10 in height. The operator stands in the center upon a circular platform, and is surrounded by an annular table supporting eight carriages, upon which are mounted the projectors, lanterns, kinetoscopes, kinematographs and all the arrangements necessary for imparting life to the scene and producing the transformations.

Each projector is supplied by a special electric lamp, and the conducting wires that lead the current pass through the suspension tube. The annular table carries the commutators and the rheostats through which the light is regulated according to the effects to be produced.

The projectors are provided with iris diaphragms that permit of obtaining vanishing effects, and night, auroral or twilight ones. These projectors, eight in number, are double, thus permitting of the preparation of a view and focusing it while the spectators are looking at another. The change of pictures is not effected until everything is well regulated.

Very accurate regulations of the carriages that support the projectors permit of perfectly adjusting the views and of bringing them to a focus in order to obtain the continuity necessary for an illusion. The eight positive photographic views that produce a panorama 300 feet in circumference and over 30 in height are, together, about seven feet in length and eight inches in height.

The rays emanating from each of these projection apparatus are such that they would overlap, did not a frame fixed to the lenses and carefully regulated once for all suppress those parts of the views that would encroach one upon another without such precaution.

When the immovable panorama is well regulated, it is possible at will to animate such or such a part by projecting upon it, through processes already applied under other circumstances, moving

clouds, moon light effects, ships in motion, naval battles, etc.

Upon combining this apparatus with the Edison kinetoscope or the Lumiere kinematograph, it would be possible to impart life to a street by projecting upon it the passing of a procession, the march of a



Fig. 3.—PLATFORM FOR THE OPERATOR AND PROJECTION APPARATUS SUSPENDED IN THE CENTER OF THE HALL.

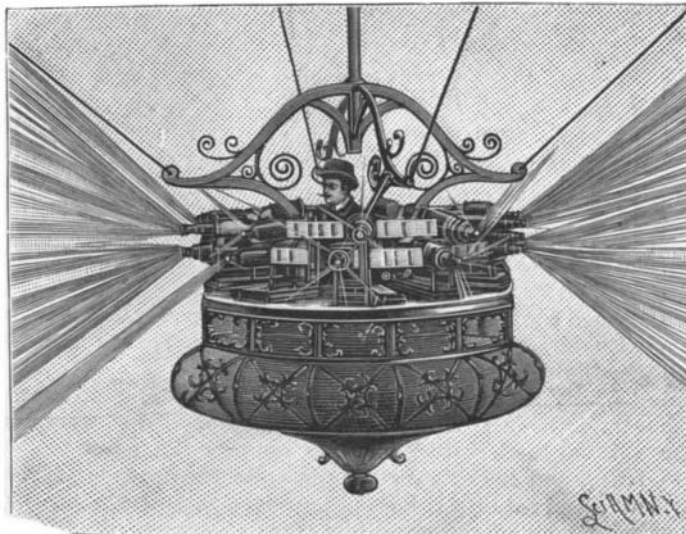


Fig. 2.—THE PROJECTION APPARATUS.

regiment, etc. It was in August, 1894, that Mr. Chase made his first experiments at the Chicago Fire Cyclorama. A panoramic photograph 4 inches in height and 32 in length was projected cycloramically upon a circular screen 156 feet in circumference and 15 in height.

According to the Western Electrician, from which most of these details are borrowed, this preliminary experiment, although crude and not carried out in adequate proportions, much surprised and in-

terested those whose privilege it was to be present thereat.

The Terrors of a First Night.

The Cornhill Magazine gives the following graphic account of the anxiety attending the introduction of a new play to a critical audience:

There is a passage outside our stage door, and there I go for a walk. It is perhaps fifty yards long, and up and down it I trudge like a convict taking exercise in a prison yard. The gallery door opens on to it, and higher up there is a slit for passing scenery through that looks down on to the stage. Some of the scene shifters stand there looking in; hot gusts of air and the voices of the actors rise up through it. But from the front of the house absolute silence; neither laughter nor applause, nor any sign of existence whatever. For any sound that rises, so far as I can judge at present, the third act might as well be played to empty benches. Up and down the passage I dolefully trudge, supported by one of the company who feels for my misery and apprehension. We talk gravely of everything but the piece; he tells me of his early career and struggles, and I listen sympathetically. I feel inclined to tell him something of mine, but conclude that after all he is seeing something of them for himself. Another joins us and observes solemnly, "I need scarcely tell you that your play depends entirely on its last act." I am much indebted to his penetration, I'm sure; I reply mournfully that I know that very well. Most plays do.

As the act draws to its close one or two people slink out of the gallery door. It's all over, I feel; let me go home and go to bed—let me try and forget I ever was mad enough to think the wretched thing was going to be a success. But my good friend takes me kindly by the arm and says that the act is ending, and we had better go down on to the stage. Exactly like the chief and most inconsolable mourner at a funeral, I go down the stone stairs and shuffle along the sloping side of the stage among people who make way for me, and at whom I dare not look. I feel a hundred years old, a broken man, that I shall never get over it. I go to my old place at the wing, and find there the master carpenter, who is smiling. Very strange, but even as I go to my place I am at once conscious of the presence of the old grateful fluid sympathy and interest I felt so strongly during the first act. There it is back again, making the footlights burn the brighter, vivifying as with a gas the whole scene. I know instinctively by its presence that the last act is all right—that it has more than pulled us through, though at present the applause has not begun. As the curtain falls and is raised again and again, the master carpenter bends forward and listens. "That's all right, sir," he says confidently. "I've seen so many first nights, and always know when the applause is genuine. That's all right, sir; you take my word

for it." And so it seems, for the company are all called, and I am called. I have a vision as I bow of a house that seems all in white standing up and clapping. It looks to me somehow like Martin's picture of "The Plains of Heaven," with all the long rows of angels. The applause continues when the curtain is finally lowered, and some one from the gallery calls "Spee-eech!" No one responds to the invitation, and we are free to go home to bed, with the happy consciousness of having all of us scored a success—author and actors and even

the master carpenter. As I go home across Trafalgar Square in the clear still night I cannot help thinking of the many pens scribbling away at that moment in the newspaper offices, nor can I keep myself from speculating, with a certain sickening apprehensiveness, as to what they are all going to say. That is one of the many trials and terrors of the theater—that your first nights are never over. There is the terror of the play itself—whether it is going to succeed or not with the audience; then comes the fear of the morning papers, and then the evening, and then the weeklies, each bringing its own particular load of apprehension.

DURING 1894, 3,315 patents relating to electricity were granted in Great Britain, the United States, and Germany. Of these 1,130 were British, being one-twentieth of all British patents, 1,704 were American, and 481 were German.

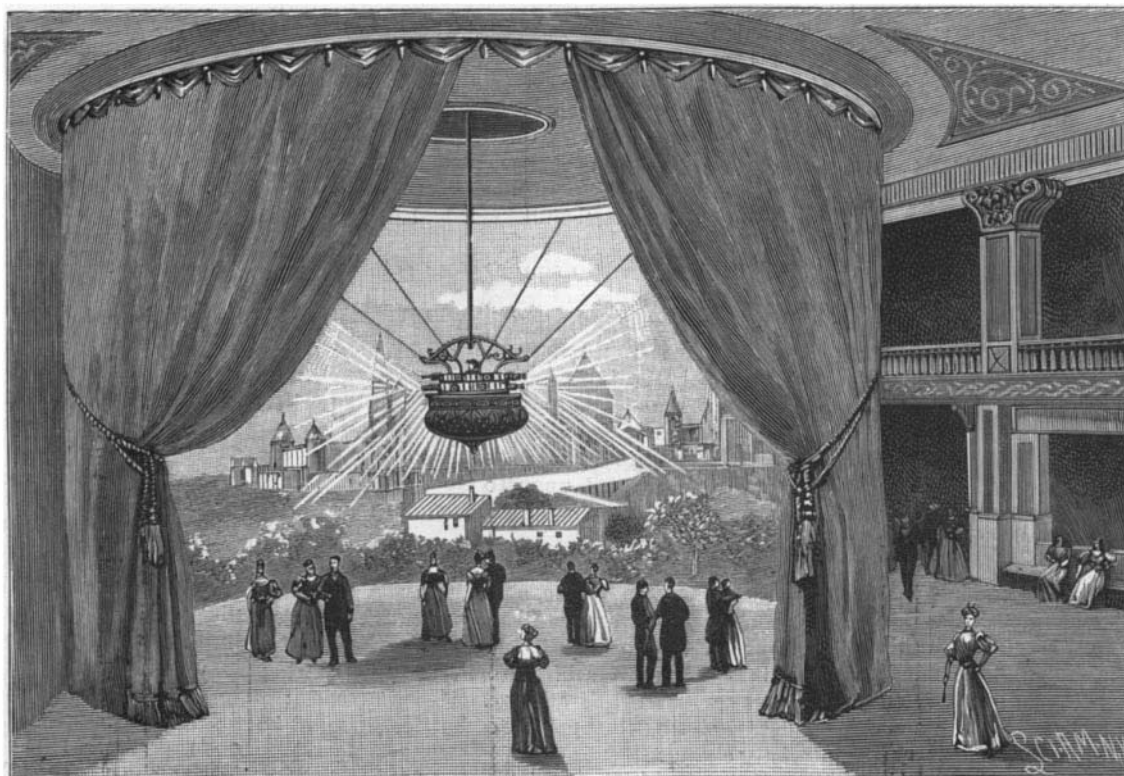


Fig. 1.—GENERAL VIEW OF THE CHASE ELECTRIC CYCLORAMA.