MOTION PICTURE PROJECTION

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Motion Picture Projection by T. O'Connor Sloane

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PREFACE

THOSE of us who have witnessed the marvellous development of the great motion picture industry, who have perhaps played in our childhood with the strangely named toys, which produced the crude effects of movement of a few printed figures on a short strip of paper, have lived through the most astonishing drama of all that the moving picture world has produced. Its own development to one of the principal industries of the world is a great romance. It is a romance told by thousands of films all over the civilized world; every film is a short chapter in the great story.

The modern motion picture projection machine has grown up from the old tin magic lantern. It has become a marvel of mechanical perfection. Every movement is precise. It deals with minute quantities, which are magnified to colossal dimensions on the distant screen, establishing a condition for showing the smallest error or imperfection in the mechanism. The projection of the minute film picture is a severe test for the mechanism of the projection machine.

This is the perfection of mechanism. Other things are to be noted. The optical system is to be of the best. A picture smaller than a postage stamp is magnified to a width of twelve or fifteen feet and the lens maker has to exercise his best skill to secure a flat image without a trace of aberration.

The intermittent movement has to be as precise as the mechanism of the dividing engine. When the Swiss watch makers developed the stop-movement to protect the mainsprings of their watches, they could

not foresee the role it was to play. For on it depends the production of moving pictures all over the habitable world.

Electricity appears also in the work. The operator no longer has to turn the wearying crank for hours at a time. Electricity does it for him.

The projection of motion pictures is a process involving the perfection of mechanics, of optics, and of electricity.

Realizing all this the author lays down his work and calls it finished, when it is really but begun. He has done his best to present the wonderful story of motion picture projection from the aspect of its practical operation. He is modest enough to realize his relation to the immensity of the subject; he is sanguine enough to hope that the book will please the reader.

The sincere thanks of the author are due to such exponents of the art, as Herbert Griffin of the Power Company, J. H. Hallberg of the United Theatre Equipment Company and William Francke of the Precision Machine Co., Inc.

Uniform courtesy and assistance from the best minds in the profession have made the labor a pleasure.

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