REPORT OF PROGRESS COMMITTEE

New Home Projector

IT IS reported that a great deal of research work and new developmental work is being done, but we are advised that at the present time, definite information cannot be divulged.[1]

Transmission of Photographs by Radio

In regard to the latest discovered application of our apparatus for the transmission of photographs, etc., by radio, namely, the transmission of Chinese and Japanese messages in native characters, samples of which I am enclosing, this is the first time in history that a citizen of China or Japan has been able to send a message by radio or by wire to his countryman in native characters. While the Chinese and Japanese can read each other's characters, these characters represent ideas, not words, and so it has heretofore been impossible to transmit these ideographs by wire or by wireless.

This difficulty was strikingly illustrated during the Armament Limitation Conference, when the public discovered, through a newspaper article, that the Japanese must transfer his ideographs into English code figures, which could then be sent by dot-and-dash wireless code to Japan, where it must be decoded from dot-and-dash into English figures and from English figures into original Japanese ideographs. The code book employed is quite a large volume.

My scheme, being a photographic means, conveys the message in native characters, relieving the operators of all responsibility, that is, I actually produce at the receiving station a photograph of the original message, and it is just as easily done, perhaps easier, than the sending of photographs, in which method we have attained quite a high degree of proficiency.[2]

Reflector Type Projection Lamp

Attention has been called to the development of the reflector type of projection lamp but no specific data has been received.[3]

Bi-Ocular Projection

Attention has been called to the development of the Allen Bi-Ocular Projection by means of which a setting is projected for the picture, in colors, but no specific data has been received.[4]

[1] Contributed by H. Griffin.
[2] Contributed by C. Francis Jenkins.
[3] Contributed by F. H. Richardson.
[4] Contributed by F. H. Richardson.

German Hand Book

"Kinotechnisches Jahrbuch 1922-1923" has been issued which apparently is very complete and which will be reported upon by the Standards Committee.[5]

Cameras

The Bell & Howell Company have recently incorporated in their standard professional Camera a focusing arrangement which permits of focusing directly on the subject through the film in the photographing aperture. A right angle prism is employed, and a magnifier mounted on the camera door enlarges and brings out all corners of the field clearly and distinctly. With this arrangement no shifting of the camera is necessary where highly critical focusing is not particularly desired.[6]

Condensers

Progress has been reported by the Scientific Bureau of the Bausch & Lomb Optical Company and confirmed by many users by the introduction of spherically corrected condensers. The correction is accomplished by the use of parabolic surfaces.

These condensers are made for both, arc light and Mazda projection.

For arc light the condensing system consists of a plano convex spherical and a plano convex parabolic lens. A number of different combinations are available to suit different conditions in the projection room. The gain in illumination varies between 12% and 25% with a screen illumination of greater evenness than obtainable with the old condensers.

The Mazda condenser consists also of two components each of which, in this case, has one parabolic surface. This condenser takes in a solid angle of 110° and is intended to be used with a concave mirror placed behind the light source in the usual way. Here the gain of light over the older construction amounts to 50%.

Special heat resisting glass is used for the lenses facing the light source.[7]

Stereoscopic Projection of Motion Pictures

It is reported that Mr. George K. Spoor of Chicago has been obtaining some very interesting results in the stereoscopic projection of motion pictures. No data is available.[8]

Sprockets for Motion Picture Films

It is our understanding that a paper is being contributed on the design of "Sprockets for Motion Picture Film" so that it is not being touched upon by the Committee.[9]

[5] Contributed by L. C. Porter.
[6] Contributed by J. H. McNabb.
[7] Contributed by Hermann Kellner.
[8] Contributed by Loyd A. Jones and Motion Picture News of Sept. 22nd.
[9] Contributed by J. G. Jones.

Device for Projecting Border

A special apparatus for utilizing the otherwise wasted light from the projector produces a border around the picture.[10]

Water-proof Screen

A water-proof screen has been developed producing promising results.[11]

Reflector Arc Projection Lamp

The reflector arc projection lamp referred to at the last Convention has made considerable strides in the past six months. Great claims have been made, but to date, no real authentic data has been presented.[12]

Microscopic Motion Pictures

Work of late has progressed on microscopic pictures. No complete data is available.[13]

Automatic Arc Projector

It is reported that a new automatic arc projector is being developed but that it is still in its confidential stage.[14]

Incandescent Lamp Projection

Progress has been made in standardization of light center and over all length (5 5/8 over all, 3 inch light center) 30—50 and 110 volts.

Continuous Projection

Messrs. Ernest Leitz Optical Works, Wetzlar, Germany, have produced a continuous projector invented by E. Mechau of our society, which is said to have been under theatre test for the past four years and is now being placed on the market.

[10] Described in the Motion Picture News, September 1st.
[11] Described in Motion Picture News, September 1st.
[12] A complete description is given in the Motion Picture News for August 18th.
[13] Described in Motion Picture News September 8th.
[14] Contributed by Max Mayer.

DISCUSSION

MR. LITTLE: It is very difficult to get progress material; it all seems to be confidential and it comes out in the trade journals before it comes to this Society.

PRESIDENT PORTER: I want to endorse what Mr. Little has said about the difficulty of getting information. It could become an important part of our Transactions, giving a brief account of the progress of our industry. Unfortunately, he cannot travel around and find out what people are doing.

MR. RENWICK: I am not sure whether I understand the plan on which the Progress Committee does its work, but two advances have been recorded in the past year which are not mentioned in the report. In Paris, successful demonstrations of color Kinematography by the Keller Dorian-Berthon method were given and a novel method of stereoscopic projection was shown in London by E. Sanger Shepherd at a Royal Society soiree. I think some mention might have been made of these in the report.

MR. LITTLE: May I ask that Mr. Renwick supply an abstract of the two articles just referred to?

(REFERENCES

Stereoscopic Projection, B. J. Phot. June 29, 1923, p. 405.
Keller-Dorian, B. J. Phot. March 2, 1923, p. 10. Color Supplement. Also, B. J. Phot. Jan. 25, 1923, p. 49.

MR. RICHARDSON: I have more of this report to present in the shape of slides. Our Chairman is right. It is very hard to get material of this kind. Frequently, I am called to one of the plants, with a warning that nothing must be said about a thing until I am given permission. Sometimes they want only an opinion on something and don't want it mentioned; also because the new device will replace apparatus at present on the market. It is like a film; it must not be described in detail until it is released, for very good reasons.

MR. CAPSTAFF: I was wondering if the Abstract Bulletin that our Laboratory publishes monthly would not be of assistance to Mr. Little. There we abstract all articles of importance in connection with photography, and in addition have short abstracts of all photographic patents. That is published, as I say, once a month, and it might be helpful to Mr. Little if we put his name on our mailing list and send him a copy. I am almost certain that the articles mentioned by Mr. Renwick are mentioned in it.

MR. RICHARDSON: I was requested by the Martens Binocular Company to present a brief description of their device together

with slides illustrating its action. It is obvious that the light which is cut off by the usual rotating shutter of the projection machine is not utilized for projecting the picture on the screen, and this device provides a means of using light which ordinarily is absorbed by the shutter. Suppose we are looking down upon the projector, the plan of the optical parts may be described as follows: Between the condensing lens and the gate of the projector is located an auxiliary shutter, the plane of which is set at an angle of 45° at the optical axis of the projector. The wings of this auxiliary shutter are the same as those of the regular projector shutter only a little wider. These two shutters are set so as to run in synchronism with each other. The side of the auxiliary shutter facing the light source is a mirror surface and when one of the wings of this shutter goes into the optical axis the light is reflected from the surface of the shutter at an angle of 90° to the optical axis of the projector. A stationary reflector is set to one side in such a position as to pick up this reflected beam and turning it through 90° throws it forward parallel to the axis of the projector. The auxiliary projection lens is placed in this beam. As the rotating shutter of the projector covers the lens, the auxiliary shutter goes into position and reflects the light through the auxiliary projection lens. At a proper point, is located a lantern slide holder which the auxiliary lens projects on to the screen forming a border for the picture. Arrangement is made whereby this border can be changed very quickly to any one of four different designs and the color can be changed at will by inserting light filters (several slides were shown illustrating the type of borders which it is proposed to use). Mr. Rothapfel thinks so well of this that he is working with the Marten people and has been for more than a month. This week and next it will be shown on the screen for "The Green Goddess," and those of you from New York can see it.

The general plan is to make special settings for each picture so that the setting will fit the various scenes (further slides shown). These slides were made only hurriedly, merely to show the different types of settings. There is something very remarkable about this which I am frank to say I do not understand. Mr. Marten is a Canadian and lives in Toronto, and the original corporation handling this is Canadian but have their studio in New York and are planning to form a company in the United States. Mr. Marten wanted me to look at this, and I did so and was astonished to see what I did in the screening room, I said I would not discuss it until I saw it in a large theatre, so he arranged a demonstration in Union Hill, N. J. I was literally astonished at what I saw. When they cut off the border the picture went dead, and when he put it on the picture was brighter and had a distinct stereoscopic effect; I don't mean that this latter is anything startling, but is sufficiently pronounced that a number of people have remarked on it. I think it will be an important feature. I believe it will work out into the production of settings for all the worth while "features." I was asked by the Martens people to present this to you, and I am glad to do it because I think it is one of the coming things.

MR. BROWN: I was fortunate enough to see this light border thrown around a motion picture at the Capitol Theatre a few weeks ago. A trout stream with fishermen was shown. From rather far back in the theatre center, the effect was that of a clear window opening into the North Country. The screen had disappeared. The illusion of depth was astounding.

MR. CRABTREE: What is the advantage of this scheme over projecting through a stereopticon?

MR. RICHARDSON: You can project it through a stereopticon, and Mr. Rothapfel is doing this for since the blades must be wider than the blades of the regular shutter some light is lost.