

**Extracts from**  
**MINUTES OF THE FIFTH ANNUAL MEETING**  
of the  
**SOCIETY OF MOTION PICTURE ENGINEERS**  
Held at the  
MIAMI HOTEL, DAYTON, OHIO

October 11, 12, 13, 14, 1920

*Monday Morning, October 11th, 1920.*

Minutes of the meeting of the Board of Governors, held in New York City on July 19, 1920, and Dayton, October 10, 1920, were read by the Secretary, and approved.

The following new members were elected, and the names read by the Secretary:

Mr. M. Burnays Johnson  
Mr. Preston R. Bassett  
Mr. Joe Hornstein  
Mr. Ivan L. Nixon

Mr. H. A. R. Dutton  
Mr. Francis J. McGinnis  
Mr. I. V. Hochstetter  
Mr. E. G. Perkins

The question of price to be established on the Transactions printed by the Society was brought up and an animated discussion followed.

After careful consideration the following motion was made, seconded and carried.

*Motion:* That the Transactions up to, but not including, the Pittsburgh meeting be sold as formerly, at \$.25 each, and that the price thereafter be \$1 each.

The Secretary was instructed to secure prices on binding the four Transactions consisting of the Philadelphia, Pittsburgh, Montreal and Dayton meetings, and that he notify all members of such cost, and have bound up a number of copies, if a sufficient call for them was received.

Luncheon was held at the Engineers' Club, during which the Hon. J. M. Switzer, Mayor of Dayton, welcomed the members to the City, and to which response was made by Past President, Mr. C. F. Jenkins.

**ELECTION OF OFFICERS.**

Report by the nominating committee was read by W. B. Cook, Chairman.

The following officers were elected by written ballot:

President .....H. A. CAMPE  
Vice-President .....ROBERT P. BURROWS  
Secretary .....A. F. VICTOR  
Treasurer .....W. E. SMITH  
Board of Governors..W. B. COOK, L. C. PORTER

The election of officers was followed by a paper "HISTORY OF MOTION PICTURES," by Mr. C. F. Jenkins.

Mr. A. F. Victor desired to know whether Dr. Goodwin or Carbutt was the real inventor of celluloid.

Both Mr. Jenkins and Mr. Blair stated that Dr. Goodwin was undoubtedly the real inventor.

REPORT OF THE SAFETY COMMITTEE was read by Mr. A. F. Victor, Chairman.

Mr. Carl Gregory being absent and his paper not being available, the President requested that Dr. Kellner present his report.

DEMONSTRATION AND DISCUSSION BY OPTICS COMMITTEE.

A discussion followed the report in which Dr. W. E. Storey, Mr. H. P. Gage, Mr. F. W. Little, Mr. I. V. Hochstetter, and Dr. Herman Kellner participated.

REPORT OF COMMITTEE ON CAMERAS by Mr. Willard B. Cook, Chairman.

Mr. Cook reported that a new book on "Condensed Course in Motion Picture Photography" had recently been written by Mr. Carl Gregory, a member of the Committee on Cameras, and was now available.

REPORT FROM MEMBERSHIP COMMITTEE, Mr. A. C. Roebuck, Chairman.

After the report had been read the committee was complimented by the chairman for its splendid activities and the good work whereby the Society had been brought to a membership of over one hundred.

REPORT FROM COMMITTEE ON ADVERTISING, presented by Mr. R. P. Burrows, Chairman.

It was moved, seconded and carried that the first resolution embodied in the report of Mr. Burrow be accepted.

It was moved, seconded and carried that the second resolution embodied in the report of Mr. Burrows be accepted.

A paper was then presented by Mr. G. A. Blair on "REDUCING FIRE HAZARDS IN FILM EXCHANGES."

DISCUSSION.

Mr. Blair added, after reading his paper, that the Eastman Kodak Company was now extending its work to the actual projection rooms and attempting to educate the projectionists of the country as to the hazards of the material handled by them.

Mr. Campe said that the paper clearly showed the cooperative efforts between many factions to bring about safety.

Mr. Manheimer asked for further details regarding the Kansas City fire referred to in Mr. Blair's paper.

Mr. Blair stated that he was certain that if the fire extinguishers had been installed at the time the fire occurred, they would have easily placed the fire under control, but said that unfortunately the automatic sprinkler system was under construction and not ready to operate at the time of the fire.

Mr. Bernays Johnson said that he had been present during one of the lectures given by the Eastman Kodak Company to Projectionists, but had failed to obtain specific information as to proper methods whereby film fires might be extinguished.

Mr. Blair replied that while he was not in the fire extinguisher business, he considered that water was the best medium for the purpose and that it served to put out fires chiefly due to its cooling action.

Mr. Johnson desired to know whether film was explosive.

Mr. Blair said that it was not explosive if in the open, but only confined in places where the correct mixture of air might be the means of causing an explosion.

Mr. Jenkins desired to know whether the connecting of the upper magazine with the open air would prevent explosions, and also desired to know whether Mr. Blair would recommend the sprinkler system in projection rooms.

Mr. Blair said that he would recommend sprinkler systems in all projection rooms.

Mr. Smith said that his experience had convinced him that most fires occurring in projection booths were due to lack of knowledge on the part of the projectionists. He also stated that if the fire valves in the magazine were kept clean, and, if the projectionist, when a fire occurred to the exposed film, would merely step back from the machine and allow the fire to burn itself out, the safety devices of the projector would automatically smother the fire and no damage would occur.

Mr. Johnson called attention to the possibility of pieces of burning film being dragged through the valves and in their turn setting fire to the reels within the magazines. He again stated that what the projectionists wanted to know is what to do in the case of a fire, and said that he considered they did all they could to keep from having one, but that it would be of advantage if they are instructed how to stop a fire after it had once started.

Mr. Manheimer said that from his experience he was certain that water was the superior medium whereby to put out film fires.

Mr. F. J. McGinnis related a case in which the fire had jumped into the magazine after having ignited some film collected around the top sprocket. He said the projectionist was experienced, but had never had a film fire before, and foolishly opened the upper magazine. The film, composed of a two thousand foot reel, was burning briskly on the floor, and the projectionist seemed unable to

think of something to do, but he (McGinnis) put out the fire very quickly by the aid of a fire extinguisher, and therefore felt certain that if a fire extinguisher was properly used it would serve to put out film fires.

Mr. Smith stated that he knew of the fire in question; that the film was imperfect and that sprocket backed the film up against the magazines, and that no serious fire would have occurred if the magazine door had been left closed.

Mr. C. J. Lang added to the previous remarks the statement that in the fire in question there was about nine inches of film leading from the aperture to the magazine which did not ignite. This proved to be quite a mystery and a number of suggestions were made as to how this had proved possible.

Mr. Campe now called upon Mr. Lee to address the members.

Mr. Lee, after expressing his gratification over the fact that so many members had come to Dayton to attend the meeting, asked that the Society make itself at home while visiting there and said that the Engineers' Club and everything within its walls were at their disposal. He further said that members should not fail to hear Mr. Kettering's address to be made during the dinner scheduled at 6.15 in the evening.

Dinner was given at the Engineers' Club during which the members were addressed by Mr. C. F. Kettering, Chief Engineer of the General Motors Corporation.

His address was a memorable event to the Society, and the Secretary cannot avoid putting in these minutes his own and his fellow members' expression of appreciation.

*Tuesday Morning, October 12th, 1920.*

Meeting was called to order at 10 A. M.

Telegrams from absent members were read by the Secretary.

A telegraphic invitation from Mr. C. W. Detz, Chairman, Invitation Committee, of Managers and Projectionists, to attend a banquet held at Hamilton, Ohio, in honor of Mr. Richardson, was received and read by the Secretary.

The Secretary was instructed to reply by telegraph and express the Society's appreciation for the courtesy shown.

A paper and discussion, "POWER PLANT AND ELECTRICAL DISTRIBUTION EQUIPMENT OF NEW EASTERN STUDIOS AND LABORATORIES OF THE FAMOUS PLAYERS-LASKY AND FOX FILM CORPORATIONS," presented by Mr. J. R. Manheimer.

A discussion followed the reading of Mr. Manheimer's paper.

Mr. Burrows, acting chairman during Mr. Campe's absence, said that it was the first paper of the kind presented and felt certain that the paper warranted discussion.

Mr. Richardson desired to know if the bus-bars recommended by Mr. Manheimer in his paper would not deteriorate if overloaded.

Mr. Manheimer explained a system of installing additional units in cases of necessity for greater carrying capacity, and also stated that the bus-bars were vastly superior to cables due to the fact that

they would stand a tremendous overload without causing any trouble even if the overload was such as to render the bus-bars red hot.

Mr. O'Brien said that there appeared to be no protection for each individual bus-bar at the point where it left the main switch. He asked the capacity of individual remote control switches and whether means to take care of expansion and contraction had been taken care of.

Mr. Manheimer said that expansion and contraction of bus-bars, both lateral and vertical had been provided for.

Mr. MacNary called attention to the possibility of different directors using different quantities of light at their work, rendering impossible the acceptance of calculation based upon candle foot illumination in studios. He also called attention to the high cost of installing the system advocated.

Mr. Manheimer agreed that the criticism made by Mr. O'Brien as to the expense of overhead systems was correct, but that the overhead structure was also usable for the fastening of scenery, etc., and therefore had additional advantages making up for the high cost.

Mr. Hubbard said that if future progress would be based upon developments made in the past two years in overhead systems, we may expect some wonderful progress during the next few years.

Mr. Campe informed us that greater advance had been made in studio lighting than any other branch of the industry during the same period of time.

Mr. Manheimer summed up the arguments advanced, and further discussion was referred to the Papers Committee.

REPORT FROM COMMITTEE ON PUBLICATIONS presented by Mr. Bragdon.

Mr. Jenkins suggested that hereafter the lists of committee members be printed in the Transactions.

Mr. Smith suggested that the names and addresses of all members be printed in the Transactions.

This matter was put to a vote and was seconded and carried and the work was referred to the publication committee for action.

REPORT BY PAPERS COMMITTEE presented by Mr. L. C. Porter, Chairman.

The methods advocated by Mr. Porter met with favor and a motion was made, seconded and carried that all of the recommendations offered in the report be accepted and acted upon.

Mr. Porter asked for suggestions from members which might help in obtaining suggestions for papers.

Mr. Jenkins recommended that a paper on the actual making of pictures in studios be prepared.

Mr. McGinnis said that a paper on correct screen angle and the overcoming of Keystone effects was needed.

TREASURER'S REPORT presented by Mr. Will C. Smith.

REPORT OF AUDITING COMMITTEE presented by Mr. Kunzman.

REPORT OF NOMENCLATURE COMMITTEE, Mr. C. F. Jenkins, Chairman.

Mr. Jenkins stated that no report would be presented at this time, owing to the fact that no new developments had occurred.

Mr. Richardson requested a discussion on the standards as published in the Montreal Transactions.

This suggestion was put to vote and it was decided to discuss the matter.

Mr. Richardson called attention to a number of errors and terms in the nomenclature list as published in the Montreal Transactions. He claimed that as printed the terms employed were entirely at variance with established usage by him and other writers.

Mr. Perkins suggested that the list for nomenclature be referred to some new committee for correction.

Mr. Jenkins stated that no terms had been adopted without authorities first having been consulted in the matter, and he thought that the difference of opinion between Mr. Richardson and himself might be due to the fact that one thing may sometimes be called by two different names.

Dr. Kellner desired to know when such a word as optience should be used. He wanted to know when an audience ceased to be an audience and when it commenced to be an optience. Since there would be both music and pictures he had some difficulty in deciding whether he was one or the other.

Mr. Porter explaining how it came about that the cut of the standard theatre film did not appear in the Montreal transactions. It was due to an oversight.

Mr. O'Brien suggested that a committee be appointed at this meeting to take action on the subject.

Mr. Victor made a motion that a committee be appointed to separate the list of nomenclature into its different branches, and that these lists be referred to the committees dealing with that particular subject and then referred back to the nomenclature committee.

The motion was seconded and unanimously carried.

Mr. L. C. Porter desired to make the following amendment to the motion made by Mr. Victor; that any terms, standards, or recommendations proposed by the nomenclature committee be submitted to the Society as a whole at the next convention for consideration, and that final decision be delayed until the next succeeding convention, at which time an approval or rejection by the entire body shall be made.

This amendment was seconded and carried.

REPORT OF COMMITTEE ON PROGRESS presented by Mr. Dennington, Chairman.

Meeting was called to order at 10.30 Wednesday, October 13, by President Campe, at the N. C. R. Schoolhouse.

Paper by Mr. P. R. Bassett "THE HIGH POWER ARC IN SPERRY AUTOMATIC PROJECTOR" was presented.

After the reading of the paper Mr. Campe announced that Mr. Patterson of The National Cash Register Company would address the members.

A discussion followed the reading of the paper participated in by Mr. B. M. Johnson, Mr. P. R. Bassett, Mr. C. A. B. Halvorson, Dr. Mott, Dr. W. E. Storey, Mr. C. F. Jenkins and Mr. W. E. Kunzman.

Mr. Farley in charge of the lecture department of the National Cash Register Company, addressed the members and explained the multitudinous use of motion pictures in connection with the sale of cash registers.

Slides and pictures were shown and diagrams were traced upon ground glass and projected. The address proved extremely interesting and gave the members an idea of the commercial application of pictures as employed in the work of the N. C. R.

A paper was presented by Mr. F. W. Hockstetter entitled "A NEW PROCESS OF TAKING MOTION PICTURES ON OPAQUE PAPER FILM" and "METHOD OF ILLUMINATION EXCLUDING THERMAL RAYS."

Mr. Hockstetter announced that he was unable to give a demonstration but those interested should visit his laboratories and see the apparatus referred to in operation.

Mr. Manheimer desired to know the capacity of the magazines in connection with the camera spoken of in Mr. Hockstetter's paper.

Mr. Hockstetter said that the camera would be able to take from one to two hundred feet and the projector from two hundred to five hundred feet.

Mr. Hockstetter did not offer substantial proof of his statements but said that he would be able to do so at a later date when his patent would permit him to do so.

Many members expressed admiration for the work while others were skeptical as to the correct data and questioned the possibility of excluding thermal rays by the methods advanced.

#### REPORT OF OPTICS COMMITTEE.

"EFFECT OF COLOR ON MOTION PICTURES" and "ABSORPTION AND REFLECTION LOSSES IN MOTION PICTURE OBJECTIVES," presented by Dr. Storey.

Mr. Victor desired to know whether, in Dr. Storey's opinion, the variation of opinions was not based upon color blindness frequently encountered in the eyes of people.

Dr. Storey did not think that the variations of opinion were due to color blindness.

Mr. Porter said that owing to the difficulty of determining the effect on different people it would be impossible to establish a standard for practical purposes.

He further said that, in his estimation, the work of the Optics Committee in dealing with the subject had been carried as far as possible; that the data so far obtained should be printed in the

Transactions and be carried on to a further point at a more convenient time.

Mr. Roebuck expressed his opinion that the two images were too widely separated to give the best opportunity for observation.

Mr. Campe stated that we all realized the splendid work done by the Optics Committee, and that the work was appreciated.

The balance of the session was devoted to a trip through the plant of the National Cash Register Company, which included a luncheon at the N. C. R. Officers' Club Dining Room.

The trip through the National Cash Register factory was followed by a trip to Morain City, the location of Research Laboratories of the General Motors Corporation.

A banquet was given at the Engineers' Club in the evening at 6.30.

During the banquet an address by Col. Deeds proved one of the events of the Society's visit in Dayton.

Col. Deeds related some very interesting incidents from his trips through the battle fields of Europe.

His sympathetic attitude toward the efforts of the engineers today awakened a responsive chord and gave a great deal of encouragement and inspiration to us all.

*Thursday, October 14th, 1920.*

Meeting called to order by the President at 10 A. M.

Mr. Beusch of the N. C. R. expressed his gratification over the selection by the S. M. P. E. in coming to Dayton, and, on behalf of Mr. Patterson, welcomed us. He expressed Mr. Patterson's great regret in not being able to personally greet us, as he had hoped to do.

A paper "PORTABLE GENERATING EQUIPMENT" was presented by Mr. F. O'Brien.

Discussion followed Mr. O'Brien's paper, during which Mr. Hertner desired to know if the type of carburetor mentioned in Mr. O'Brien's paper employed heavy oil or gasoline.

Mr. O'Brien said that both could be used but that on the coast gasoline was used exclusively, chiefly on account of the expense of the apparatus, gasoline being less damaging to the machines.

#### REPORT OF ELECTRICAL DEVICES COMMITTEE.

Read by Mr. Roebuck during the absence of Mr. Wible, Chairman.

REPORT OF THE PROJECTION MACHINE COMMITTEE, presented by Mr. W. C. Smith, Chairman.

REPORT OF THE CORRESPONDENCE COURSE COMMITTEE, presented by A. R. Dennington.

Mr. Victor said that in his opinion the task was beyond the Society, both financially and otherwise and suggested that the matter be definitely dropped.

Mr. Porter remarked that credit for the preparation of the report was due to Mr. Dennington.

Mr. McGinnis cited an attempt made by another organization of which he was a member to establish a correspondence course. He said that he did not question the ability of our Society to produce perfect projectionists by means of correspondence, but called attention to the fact that local requirements where in some cases an apprentice was compelled to put in six months actual work before permitted to operate a projector; would work against the scheme. He said that he agreed with Mr. Victor that the matter be dropped.

Mr. Burrows said that it had been hoped at the time the plan for a correspondence course was proposed, that we would be able to be of assistance to the projectionists, but if, as appeared to be the case, the projectionists would be narrow-minded enough to be antagonistic to the scheme, and if, in addition, the plan was financially impractical, he offered as an alternative that the Society make an offer of assistance to some existing correspondence schools, for instance, the one operated in Scranton.

Mr. Bragdon suggested that by increasing the edition from a suggested 5,000 to 10,000 the cost per copy would be lowered and wondered if this would prove a way out of the difficulty.

Mr. Jenkins stated that he considered the remarks made had very well covered the subject and considered that the difficulties confronting the Society in carrying out its plans were such as to prevent the undertaking of the work.

Mr. Porter, in order to refresh our memory of the recommendation made at the Montreal meeting, read it and said that it might not be practical of the Society to handle the financial end, but that some way might be devised in which our technical knowledge might be at the disposal of the projectionists.

Mr. Cameron said that two correspondence schools already had courses for projectionists.

Mr. Perkins mentioned that in conversation with a member of the La Salle Institute he (the member) had expressed as his opinion that the Institute would be glad to handle the work if the Society would sponsor the matter.

It was moved, seconded and carried that the report be referred back to the Special Committee for further consideration.

Paper on "CHARACTERISTICS OF MOTION PICTURE SCREENS," by Mr. L. A. Jones.

A discussion followed Mr. Jones' paper.

Mr. Egeler said that the work done by his organization checked very well with Mr. Jones' data. He said that his observation had been that the Keystone effect and placing of screens also called for vertical, as well as horizontal consideration. He asked if Mr. Jones had considered the vertical problem.

Mr. Jones replied that the examination of screens made by him had considered both vertical as well as horizontal questions.

Mr. Victor said that the paper was a "peach" and that here

possible to formulate data whereby screens of given numbers could be obtained for theatres having definite angle requirements.

Mr. Smith stated that Mr. Victor had expressed exactly what was in his mind.

Mr. Rembusch said that he was very much interested in Mr. Jones' paper. He stated that the first mirror screens were manufactured by him and were made for narrow theatres, but that the same screen, if placed at the proper distance from the front rows, would serve for wide theatres. He wanted to know if Mr. Jones had considered the colored screens. He said that a white screen was preferable on account of giving correct color values to tinted and toned films. He gave a description of the effect of various mirror screens and methods of coating surface of such to cause diffusion in making mirror screens practical for wide angle observation.

Mr. Porter wanted to know if the figure obtained from flat screens could also be applied to the concave type.

Mr. Jones said that color had not been considered in his observation. He said that he personally preferred a tinted screen and hoped to obtain data on such screens at a later date. He recommended that the Society decide upon a definite measure of screen illumination, or, at least, a definite limit beyond which we should not go.

It was moved, seconded and unanimously carried that a vote of thanks be given to the following Dayton organizations for the courtesy extended to the S. M. P. E. during its visit as well as the encouragement and inspiration given to our work while in that city:

Delco Light Company,

Delco Company,

National Cash Register Company,

General Motors Corporation,

Engineers' Club of Dayton,

Miami Hotel, Mr. Smith and their assistants, and the Secretary be instructed to write a letter of appreciation to each organization.

The President now requested that places for our next meeting be suggested.

It was moved, seconded and carried that the next meeting place be selected by means of a ballot.

While the ballot was being taken a report from the SUSTAINING MEMBERSHIP COMMITTEE was rendered by Mr. Cudmore, Chairman.

Mr. Cudmore said that a number of letters had been sent out and that plenty of replies had been received, but that no practical result had been attained. He felt that the method tried would not produce the personnel desired, and that it required the efforts of the entire Society to obtain such members as are truly desirable. He made the suggestion that every member make it his business to pick out the men wanted and send the names to him (Mr. Cudmore) or someone else acquainted with the person suggested. A personal interview should then be arranged with the prospect. He placed the matter before the Board of Governors for their consideration and

said that he felt certain that financial support could be obtained by the method suggested. An additional suggestion made by Mr. Cudmore was that a chapter of the Society be formed in California.

Mr. Campe considered Mr. Cudmore's remarks well made and said the suggestions would be considered by the Board of Governors.

Upon counting the ballots it was found that Washington had been selected with Los Angeles a close second.

The meeting was therefore adjourned until the next convention to be held in Washington some time in April, 1921.

A. F. VICTOR, *Secretary S. M. P. E.*