DISCUSSION ON REPORT OF STANDARDS AND NOMENCLATURE COMMITTEE

MR. PORTER: Last year a number of things were approved which have stood so far without change; of course, they are open to discussion here, but if they are changed, they must lie over another six months.

(Motion duly passed that the standards and nomenclature initially accepted at Roscoe be approved.)

I think we will make best progress if we take up the new items one at a time.

"Cutting width of 35 mm. positive film: The Committee discussed the standardizing of the cutting width of standard positive film. After very careful consideration, the Committee agreed in recommending that the standard maximum cutting width shall be 35 mm. (1.378") for the following reasons: (1) When discussing film widths in the metric system, this film is known as 35 mm. and we think it desirable that all film widths should be represented by whole numbers in the metric system as is already the case with the 28 and 16 mm. positive and 35 mm. negative films, all of which were approved for standardization at the last S.M.P.E. convention. (2) Being a maximum cutting width, its main purpose is to inform the manufacturer of apparatus as to the maximum width for which he must allow. (3) While the Committee is aware that film appreciably below 1.375" is commonly met with in practice, due to shrinkage and other causes, it seems desirable to establish a minimum width for freshly cut film of 1.375" in order to avoid the possibility that film much below this dimension should be regarded as conforming to our standards. (4) The Committee believes that the adoption of these dimensions will not involve the alteration of any existing apparatus."

(Motion duly passed that the recommendation be accepted.)

MR. PORTER: "Form of perforation: The question of standardizing the form of perforation for 35 mm. positive film was discussed and it was decided to hold this over until some future time as it is probable that several forms will be tried out during the coming year. Cutting width and form of perforation were the only two matters in question. All other dimensions, etc., of 35 mm. positive film remaining as already agreed upon and reported at the 1924 spring convention."

(Motion duly passed that the recommendation be accepted.)

MR. PORTER: "Projection speeds: It was decided on account of complications involved, that the Committee did not have sufficient data to make a definite recommendation. Arrangements were made with Mr. Griffin of the Nicholas Power Company to have a demonstration at Chicago."

Since this report was printed, tests of various projection speeds at a screen brilliancy of tenfoot candles with the shutter running and no film have been conducted by your committee assisted by Messrs. Earl Dennison, R. C. Peck, Roger Hill, and Herbert Griffin. We came to the unanimous and definite conclusion that a projection speed of 80 is best with a minimum of 75 and a maximum of 85. It is realized fully that there are numerous factors entering into this problem such as screen brilliancy, type of picture, type of shutter, etc., and that under certain conditions, other speeds may be permissible or necessary. However, all these considered, your committee recommends 80 feet per minute as the best practice. We will now demonstrate these various speeds to you, covering a range of from 60 to 95 feet a minute. (Projection of demonstration reel of film.)

MR. RICHARDSON: I have repeatedly protested against the sixty-feet-per-minute projection speed adopted by this Society several years ago. Such a speed is entirely impracticable in the many theaters where high screen brilliancy prevails, because it could not be applied without very bad flicker. On the other hand, any speed in excess of that necessary to eliminate flicker and set up naturalness of action is bad because of excessive strain and wear on the projector mechanism and the sprocket holes of the film.

Up to eighty feet a minute, projection is possible without any increase in the projector gate tension now used. At eighty feet per minute, flicker is totally eliminated, even where screen brilliancy is very high, and that speed gives as natural action as can be had with any speed. I am convinced that eighty feet of film per minute represents good projection practice under modern conditions and I trust this Society will adopt it as standard recommended practice.

MR. NORRISH: Do I understand that the Society recommends 80 instead of 60 for taking?

MR. PORTER: No, in that point we felt that the camera-man will take pictures at different speeds, and he will do this according to the work in hand, so that we have worked on the basis that the projection speed should remain constant and the cameraman change his speed to meet different conditions.

MR. ABBOTT: Mr. Porter says that the cameramen take pictures at different speeds, and if various speeds are used, how are we to know which one should be used for such a test as this?

MR. PORTER: I think you will all realize this is a problem in which there is an endless number of variations and the best we can do is to cut corners and recommend what is generally good practice.

I call attention again to this clause in the report: "It is realized fully that there are numerous factors entering into this problem such as type of shutter, screen brilliancy, type of picture, etc., so that under certain conditions, other speeds may be permissible or necessary."

MR. RICHARDSON: With the brilliant screen illumination of today, flicker is far worse than it was and the first consideration is to eliminate it.

MR. DENNISON: Disregarding flicker, the action is too slow at 60.

(Motion duly passed that recommendation concerning projection speeds be accepted.)

MR. PORTER: The next question on our report was discussed at the last meeting and turned back to the Committee, that of aperture sizes for cameras and printers: "After thorough discussion of standard sizes for apertures for camera and printer, it was decided to place before the Society the same dimensions of apertures as recommended by the Standards Committee at the 1924 spring convention, with the additional notation that in order to secure the black border, the camera aperture corners may be either round or square, as desired, but the corners of the projector aperture must be square. The Committee will be prepared to repeat the demonstration given at the spring convention if the Society so desires." The various apertures are printed in the little bulletin sent out to you but we didn't have a chance to check the proof and some of the figures are misplaced, so that I will ask Mr. John Jones to take over the discussion on this.

MR. JOHN JONES: I have a letter here from Mr. Mitchell in connection with the size of apertures.

MITCHELL CAMERA COMPANY
6025 Santa Monica Boulevard
Los Angeles, Cal.

Sept. 25, 1924.

Mr. Loyd A. Jones,
Edgewater Beach Hotel,
Chicago, Ill.

RE: APERTURE SIZES

Dear Mr. Jones:

At the Boston meeting the Society approved of a standard aperture for Ph. Projectors of .6795x.906.

The camera aperture should be near the same size as the projector, for the reason that the Director and the Cameraman have no other means to compose their picture than through the camera aperture.

Each camera manufacturer has left a hole through which to make an exposure, some were better than others from a practical standpoint, some were terrible from any standpoint, and caused the Cinematographer and Producer needless trouble and expense. He had to be a good guesser to get any composition at all.

Many camera apertures ran way over into the perforations, and characters on the side lines would be entirely cut off when the scene was projected.

When the Cinematographer and Director compose their scene, it is necessary that they have within the margins of the aperture, that which is going to show on the screen, for a little of this or that cut off often destroys the balance of the whole scene, and they must not be left to guess how much is to be cut off by the projector.

We must therefore establish a camera aperture that will give the photographer a definite outline to work to.

One well known make camera aperture is .723×.973, but with your projector aperture of .906 wide, this is over 1/16″ to be cut off by the projector, entirely too much, and the Photographer must school himself in the use of this, or he will be cutting his characters in half on the side lines.

We use an aperture .723×.920, and this size serves admirably, since there is only a margin of .007 on each side to be cut off.

The height could be increased to have the same margin at top and bottom, with no detrimental effect, if this were believed advisable by the Society.

The Printer aperture can be any size larger than the camera aperture, up to the full 1″×.748. Most laboratories out here use the continuous printer, so only the one dimension enters into the result.

If it is decided to make the camera aperture smaller than the projector aperture, my objection would be overcome, but in that event, I think the projector aperture now standardized by the Society is too small, as you are making smaller the usable area, and magnification must be needlessly increased.

If it be borne in mind that the Cameraman should see as near as possible the same picture through his camera as is seen by the individual when it is projected, I believe beneficial results will be obtained.

Sincerely yours,

GAM:B. G. A. MITCHELL

(Demonstration given with lantern slides and motion picture film.)

MR. CRABTREE: What will happen to the black border if the gate of the projector is cut so as to compensate for the keystone effect?

MR. JOHN JONES: You cannot eliminate the keystone effect if you have the black border.

MR. KROESEN: Will not the recommendation of the black border show up the defective negatives where the camera is somewhat unsteady? If no black border is used, the projected picture might not appear to be unsteady. I think the adoption of the black border on the film itself should not be accepted until a little further investigation is made. I was somewhat surprised that you did not show a portion of your film photographed with a steady camera and with an unsteady camera with the black border.

MR. JOHN JONES: The camera used was very unsteady due to the manner in which it was mounted and it was, therefore, very suitable for the purposes of this demonstration.

MR. KROESEN: I noticed that the camera was unsteady. If the projector aperture was a trifle smaller, it would not show the border on the film itself; it might have the effect on the audience of being more steady than it was.

MR. JOHN JONES: A picture taken with a steady camera with the aperture arranged to show a black border will be just as steady as though projected through an aperture.

MR. RENWICK: My impression is that at Roscoe the meeting was in favor of the black bordered picture, and that the matter was referred back to the Committee chiefly on the question of square or rounded corners. If that be still true and this meeting favors the retention of a black bordered picture, I suggest that the recommendation might be made more clear than it has been. The recommendation

is that the dimensions recommended would be those shown in Figure 4 on the screen except that in order to take care of square corners, it becomes necessary for the projector aperture plate to have square corners always; you may have square or round cornered apertures in the camera which is the only mechanism requiring two types of aperture.

MR. RICHARDSON: I believe I am safe in saying that a very large percentage of the high class theaters of this country and Canada have a projection angle far in excess of that recommended by this body. Under this condition it would, it seems to me, be impossible to apply the black border. It could only be applied where the projection angle is well within the maximum approved by this body.

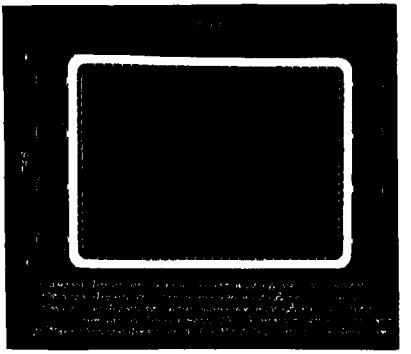
MR. RENWICK: I would like to remind Mr. Richardson that at the last meeting he expressed himself very strongly in favor of the black border. I think if the British Society can recommend the black border, there is no reason why we should not. If it will bring to the attention of the architects the necessity for more normal projection than they have been in the habit of permitting, it will be a good thing. If we cannot agree at this meeting, it will not help to turn it back again to the Committee because it is not evident what the Society wants to do.

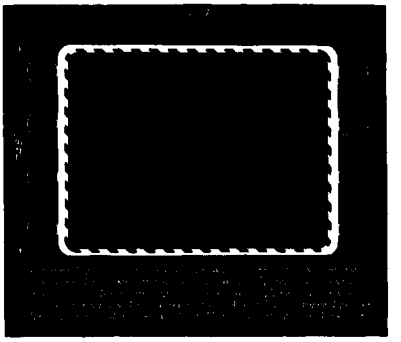
MR. KROESEN: I want to analyze what will happen if the black border is definitely decided upon and adopted. You will find all projector manufacturers decreasing the size of their aperture, and we will find what we thought we had standardized on (projector machine aperture) will be no longer a standard, and the projector manufacturers will be forced to a smaller aperture to compensate for the black border.

MR. HILL: One point brought out by Mr. Richardson is the fact that we have distorted pictures, which makes it necessary to correct the outline either by filing the aperture to a keystone or by using a black border wide enough to absorb the keystone effect. In order to do that with a picture having a black border printed on it, we must make a smaller keystone aperture or come in still further with the black border and the net result will be a loss in the effective area. I believe that will be the result of any action which would include a black border in the projected picture.

MR. JOHN JONES: We must not overlook the advantages of making the camera aperture the smallest. The cameraman can see exactly what he will get in the projected picture as everything showing inside the camera aperture would be projected. Aperture sizes can be standardized either with or without the black border so that those who want to use it can do so.

MR. PORTER: My feeling in this matter is that this Society and your Standards Committee should recommend what is good practice and not what necessarily fits present conditions. If we feel it is right, it is our function to recommend what will improve motion picture projection.





MR. RICHARDSON: I believe the black border is the right thing; I don't believe under present practice, however, that it can be used in many theaters. Whether we should cater to the wrong condition I don't know.

MR. GRIFFIN: I spoke at length on this subject at the last meeting, but I think the recommendation should be made. What we are trying to correct are the evils which exist. You can do this better if you standardize on the border because our aim is to get projection rooms in such a position that the best results are obtained. Unless you force the issue, you will continue to do the wrong thing, and if the film ten years from now all has a black border, the projection room must be moved and the pictures will be better projected, so I say let us recommend the practice.

MR. CRABTREE: It is not clear what is recommended; is it the condition given in Figure 1 or Figure 4, or both?

MR. JOHN JONES: The idea was to establish the size given in Figure 4 of Plate 2 to produce a picture with a black border with the exception that either round or square corners can be had. If not, Figure 1, Plate 2 is the one to standardize so as to give the cameraman the size of aperture to work to.

PRESIDENT JONES: In view of the alternative propositions, I think that the motion should be stated that we want to recommend the black border with or without the square corners. Mr. Griffin, will you accept that interpretation of your motion, that you recommend the dimensions with black borders with or without square corners?

MR. GRIFFIN: I do.

(Recommendation thereupon accepted.)

MR. PORTER: Now, we come to the question of standardization of external diameter of barrels of projection lenses. It is the opinion of the Committee that it is desirable to standardize projector lens mounts, if possible.

Your Committee finds that at the Rochester convention your Optics Committee studied the problem of standardizing the size of the barrels of projection lenses. They made the following recommendation to the Standards Committee, but we cannot find that any action was taken by either the latter or the Society.

This is a section from Dr. Storey's report made at that time: "A request was received from the Committee on Standards for a recommendation on the external diameter of the barrels of projection lenses. The Projection Machines Committee was asked whether all the projection machine manufactureres could be persuaded to agree on two sizes—one for a number 1 lens and one for a number 2. Pending a definite reply from the Projection Machines Committee, the Optics Committee has recommended to the Committee on Standards the adoption of two and one thirty-second of an inch for the external diameter of the barrel of a number 1 projection lens, and two and twenty-five thirty-seconds for that of a number 2 lens. The

diameter of the B lens standardized by the Incorporated Association of Kinematograph Manufacturers (London) is 2 1/16″.

There seems to be two chief factors in this problem as represented by letters which the Committee has from the Gundlach Manhattan Optical Company and the Bausch & Lomb Optical Company as follows:

GUNDLACH-MANHATTAN OPTICAL COMPANY

Lens Apertures

Rochester, July 6, 1922.

Dr. W. E. Story, Jr.,
c/o General Electric Company,
Schenectady, N. Y.

Dear Sir:

Your letter of April 5th to members of the Optics Committee has not been forgotten, but I have had so many other things to think about that I postponed answering.

Unfortunately I missed the Boston meeting so did not hear the discussion on the size of mounts for projection lenses, but I understand it was proposed to make a slight change in the diameters. There is no excuse for this whatever.

When we started making projection lenses about twelve years ago, there was only one size lens on the market for projection motion pictures. The diameter of the tube of this lens is 1.671,—about 1-5/8 in. In order to increase the working aperture to improve the illumination, we were obliged to make lenses at larger diameter, and for this reason when we introduced our No. 1 size projection lenses we established a standard of our own by making the tube 1-15/16 in. diameter and later, to increase the working aperture of lenses of longer focal lengths we made the No. 2 size and established another standard for the size of the tube of 2-25/32 in. diameter. These sizes, our No. 1 and No. 2, have been standardized by usage. No other concerns made these lenses for a long time, and now there are thousands of these sizes in use and other manufacturers are making the same size, so it would be absurd to try to change these standards at this time, and a trifling increase in the diameter of either size would serve no useful purpose.

Briefly, this is my objection to making any change from the existing sizes:

Looking ahead to the possibility of increasing the working aperture of lenses in the longer focal lengths we may possibly, to advantage, establish a standard for a projection lens of larger diameter than the No. 2 size or a larger amount than 2-25/32 in. diameter, so if the machine manufacturers wish to design their machines to accommodate such large lenses they will know what the diameter of the mount will be. However, there is no particular need of this because it is not likely that there will ever be any great demand for machines to accommodate lenses of larger diameter than 2-25/32.

I agree with you that it is not advisable for the Committee to concern itself regarding the quality of projection lenses now on the market, or the quality of any manufactuerers' products.

It would undoubtedly be an advantage if all machines using standard films were designed to accommodate No. 2 size projection lenses in focal lengths from 4-1/2 in. up, furnished in mounts 2-25/32 in. diameter, their full length, so the mounting of lenses with the rear combination smaller than the front can be avoided, and there should be nothing between the lens holder and film to interfere with using a lens of this size.

It would also be well for all the portable machine manufacturers to agree to design their machines to accommodate lenses of uniform size, say No. 1 size lenses in this instance. As it is now, a great many portable machines require lenses in mounts of different diameters so there is no uniformity at all in the size of the mounts, and in many cases the machines will not take a lens of large enough

diameter to give a reasonable amount of illumination. The lens seems to be the last thing they think of when they design a machine.

Yours very truly,

Dc.HG.-B. HARRY M. R. GLOVER.

BAUSCH & LOMB OPTICAL CO.
Rochester, N. Y.
Lens Apertures

Rochester, May 28, 1924.

Mr. L. C. Porter, Chairman,
Standards Committee,
Society of Motion Picture Engineers
c/o Edison Lamp Works,
Harrison, N. J.

Dear Sir:

Since the writer understands your committee will probably give consideration to the standardizing of projection lens apertures, and possibly will again consider the standardizing of projection lens outside diameters, I am taking the liberty of placing before you a few facts which I feel should be given consideration by your Committee.

First, the Bausch & Lomb Optical Company want it understood that they are desirous of cooperating in so far as possible in the standardization of lens diameters, and submit the following explanation for the variation in diameters of our Series 1 and Series 11 lenses from that of the other manufacturers.

When we designed the Series 1 and Series 11 lenses, the Nicholas Power Co., for instance, were not supplying lens holders or jackets for either of this size of lens for their machines, and since the lenses on the Simplex and Motiograph machines were not supported in the case of the No. 2 by their main barrell but by a reducing adapter attached to the rear cell, the matter of making the diameter of this lens the same as that of the Grundlach lens which at that time was the only other similar lens made, did not seem to be important, and we adopted for a barrel diameter a stock tubing and stock diameter of lens mount. Now that the Nicholas Power Co. are supplying on their improved type "E" machine a lens holder permitting the use of the full aperture of a No. 2 lens we readily grant the desirability of having the so-called No. 2 lenses all of a standard barrel diameter.

Our No. 2 lens as made at present, has a barrel diameter of 2-23/32 as opposed to a barrel diameter of other manufacturers of 2-25/32. We readily agree in the case of this lens to take steps to change this diameter of lens barrel to 2-25/32 as soon as manufacturing conditions will permit and in the meantime to supply to the Nicholas Power Co. or their distributors a split ring adapter so that these lenses will readily fit their mounting.

We would point out again that because of the manner in which the lenses are held on the Simplex, Motiograph and Baird projectors, that the main barrel diameter of the Series 11 lens is not important, but the increased diameter can quite as readily be applied to these machines when they become available.

2. At the time we designed and placed on the market our Series 1 Cinephor lens there was a demand from projectionists, particularly from Mr. Richardson, for a lens of this class with as large a lens diameter as possible to use on the projectors as manufactured at that time. Here again we would point out that at the time of the introduction of this lens the Nicholas Power Co. was not making a lens holder but the lenses were supported by a jacket screwing into a flange on the front of the machine head. Having in mind to meet the demand for increased lens diameter in this type of lens we, therefore, designed this lens of just as large diameter as was practical to fit on the Power's machine and to clear the interior mechanism in the case of short focus lenses. We, of course, supplied focusing jackets with this lens with a thread fitting in the flange regularly supplied with their machines so that there was no difficulty in anyone applying our Series 1 lens to a Power's make of machine.

In the case of the other makes of machines there was no difficulty in fitting this Series 1 lens because the lens holder as provided was of even larger diameter,

designed to take the reducing adapter of a No. 2 lens and the Series 1 lenses, therefore, could be fitted by means of a split ring adapter which we have included without fittings for adaptation to either the Simplex or Motiograph machines.

We simply want to emphasize again that in designing our Series 1 lens we had in mind to go just as far as we could in free lens diameter, and still fit to the machine as then available, and we felt we were justified because that meant a real advance in lens efficiency.

Our Series 1 lens has an outside barrel diameter of 2-1/32" which we believe is approximately 3/32 greater diameter than that of the so-called No. 1 lenses of other manufacturers. Our lens has a free lens diameter of 43 1/2 mm. compared to a free lens diameter of 40 mm. in the case of one manufacturer and 39 mm. in the case of another. It seems perfectly obvious that this gain in free lens diameter is worth something.

The Boston number of the Transactions contains on page No. 188 the recommendation of the Standards Committee of which Dr. Story was then chairman, that the diameter of the No. 1 lens be 2-1/32" and that of a No. 2 lens 2-25/32". He also comments that there seems a little chance of a unanimous agreement on these dimensions because of the different interests involved. In the preceding number of the Transactions, namely that covering the Rochester meeting, Dr. Story as Chairman of the Optics Committee, submits a report on the question of No. 1 and No. 2 lenses on page 145. The writer feels that you should know that preceding that report of Dr. Story's, that he called together Mr. Glover, representing the Gundlach-Manhattan Optical Co., and the writer representing the Bausch & Lomb Optical Co., and that as a result of that conference Dr. Story made his report at the Boston meeting. It seems to the writer that if there is to be a standardization of these diameters that there must be a willingness to cooperate not only between the lens manufacturers but machine manufacturers as well, and some standard types of holders decided upon.

Since the Bausch & Lomb Optical Co. are willing to go to the expense of changing the diameter of their Series 11 lens to bring it up to that of other lenses of this class, it seems no more than fair that other manufacturers of a so-called No. 1 size of lens should be asked to increase their barrel diameters 2/33 of an inch, since there is no more involved in that procedure for them in the case of the No. 1 lens than there is for us in changing diameter in the case of the No. 2 lens. For the Bausch & Lomb Optical Co. to change the diameter of its Series No. 1 lens would mean not only a change of barrel and mounting diameters but a change in lens diameter, and the removing from the market a lens of increased free diameter which has generally been commended. It has been stated that common practice should constitute standards, and perhaps this argument should hold good so long as it does not retard development of the art. This certainly would be the case if the smaller diameters of the No. 1 type of lens should be adopted as a standard.

If there are any points which we have not made clear that you should like further information upon, we should be very glad to cooperate with you, and in closing may we point out the desirability of your committee pointing out to machine manufacturers the absurdity of using large diameter lenses such as the No. 2 size and diaphragming down that aperture by means of a reducing adapter in order to make it mechanically convenient to fit such a lens to their lens holder.

Yours very truly,

BAUSCH & LOMB OPTICAL COMPANY.

ILN:DS. By I. L. NIXON.

Your committee considers that it does not have sufficient data to make a definite recommendation at this meeting. Recognizing, however, the great need for standardization in this matter, we invite full discussion of the problem.

MR. RICHARDSON: I believe that either this Society or the Committee ought to call a meeting of representatives of the Bausch &

Lomb, Gundlach-Manhattan, and such other lens manufacturers as may seem desirable, also the Nicholas Power Co. and other projector manufacturers. By getting these men together with the Committee undoubtedly this matter could be settled and I don't think you will settle it in any other way.

MR. PORTER: It would seem to me that everything is clear and smooth so far as the No. 2 lens goes; Bausch & Lomb have agreed to go to 2 25/32 with everybody else making it; why can't we standardize on this and then take up the No. 1?

MR. GRIFFIN: I move that we accept this recommendation to adopt 2 25/32 inches as the outside diameter of barrels of projection lenses.

(Motion duly passed that outside lens diameter of 2-25/32 inches be accepted.)

PRESIDENT JONES: What is your desire with regard to the No. 1 lens?

MR. GRIFFIN: I don't think we can do anything at all with this at this meeting because Bausch & Lomb are the bone of contention, and I think they have made a good step in increasing the diameter. We objected to it because we had to make new adaptor rings, but now they have compromised and I think it should be possible to get the other manufacturers to increase the size of their barrels and working apertures, and I think this must be taken up as suggested before.

(Motion thereupon passed that the matter be referred back to the committee.)

MR. PORTER: The next point is "Standardizing width of film splices: The only definite information regarding desirable width of splices for positive or negative film that the committee has been able to collect was submitted by the Bell & Howell Co., and pertains to their film splicing machine. It was, therefore, thought advisable to hold this matter over until further information on the subject could be acquired." (Agreed.)

There is one matter which has been brought up by a letter which is not included in the Standards Committee report—the question of film core. This is a letter from Mr. Mitchell of the Mitchell Camera Company.

MITCHELL CAMERA CORPORATION
6025 Santa Monica Boulevard
Los Angeles, California

September 25, 1924.

Mr. Loyd A. Jones,
Edgewater Beach Hotel,
Chicago, Ill.

RE: FILM CORE

Dear Mr. Jones:

Undoubtedly at this meeting the question will again arise about the size core to fix upon as standard.

When we entered into the field as manufacturers of cameras, we found a varied condition in regard to the core. Every camera manufacturer used a different size spool on which to wind the film.

Cameramen using the Bell & Howell did not as a rule lose any film by tearing out the center, but left off the spool in the feed side and only used spools on the take-up end of the film. Wetting the spindle on the feed side generally stuck the film tight enough so it could be rewound. I followed this practice myself for a considerable time while employed as a cameraman. Some would rewind a roll when they knew they had to wind the film back.

The damage done to the film was after the days work was finished, being eager to get home, they would remove the spool from the exposed roll and then hold the center and pull the end until they had reduced the size of the roll sufficiently to go into the 400′ can supplied by Eastman. Many scratches resulted therefrom. (This operation is generally handled by the Assistant Cameraman.)

To overcome this tendency to be careless, we adopted a spool 15/16″ in diameter, so the roll as received from Eastman could be slipped on very easy, and when the day's work is finished, the roll will go back into the 400′ can without trouble. This permitted the use of smaller magazines on our camera, with a saving of weight.

A take-up was devised to drive this at the proper speed, using a 1″ hardened pulley with about a 10 degree angle groove on which the belt can't slip, all the slippage taking place at the magazine itself, on which is a round bottomed brass pulley 2″ in diameter.

With this arrangement, with a fast moving drive pulley, it works very successfully, and no loading up is noticeable as the take-up roll gets larger.

Since a standard which is not used is of no value, standard adopted should be of the most practical value, and work the least hardship on all concerned, so that it will be used by all, and become a *STANDARD IN FACT*.

Deploring the fact that I am not able to attend this convention in person, I trust you will give this matter the proper place before the interested parties.

Wishing this assemblage a very successful session, and thanking you for your kindness in presenting this matter, I am,

Most cordially yours,

GAM:B. G. A. MITCHELL.

Now, your committee has not given any consideration to this matter because it was not received in sufficient time, but we should be glad to have the benefit of discussion on it.

MR. RENWICK: Inasmuch as this matter was also dealt with in the paper delivered by Mr. Vinten, I think it should be referred to the Committee on Standards and I move that this be done.

(Motion duly passed.)

MR. DENNISON: Could I make a motion at this time that the committee determine camera speeds?

(Motion duly seconded and passed.)

MR. PORTER: We shall be very glad to use our best endeavors to carry out your wishes, and I should appreciate it if Mr. Dennison will write us at considerable length.

We will now go on with nomenclature. "Arc" was eliminated at the last meeting; a definition for "retake" was referred back. "Request for a proper definition was sent to the membership in the S.M.P.E. bulletin, Vol. 1, No. 2, September, 1924, but to date, no replies have been received." To date we have received only one reply and that was from Mr. Chanier, who suggested—

RETAKE: The action of photographing scenes, or the negative resultant therefrom, when the negative or negatives previously obtained are unsatisfactory.

(Motion passed that the definition be accepted.)

MR. PORTER: Another definition referred back to us which was not printed is that for "scene." This was sent out in the Society's Bulletin with a request for a proper definition, and the only reply was from Mr. Chanier as follows: "Scene: A division of the story showing continuous action in the same locale or set and taken from the same point of view."

MR. RENWICK: In view of the difficulty we have had in trying to frame a satisfactory definition for "scene," I move that it be accepted.

(Motion duly passed.)

MR. PORTER: The definition of "film gate" was referred back to the committee at the last convention. We now recommend the following definition: "A movable element which, when in operating position, holds the film in register against the aperture plate, and is provided with an opening through which the projected light passes."

(Motion passed to accept definition for "film gate.")

The definition for "cooling plate" was also referred back to us for which we offer the following: "A shield, or baffle, composed of one or more plates mounted between the light source and the mechanism to prevent overheating the latter."

MR. ROEBUCK: It occurs to me that that might be improved a little to read: "A shield or baffle composed of one or more plates mounted between the light source and the mechanism and usually attached to the latter but spaced therefrom to prevent overheating the mechanism.

(Amendment seconded and passed.)

PRESIDENT JONES: The original motion before the house will appear as amended; all those in favor of the motion as amended signify by saying "Aye." (Motion thereupon duly passed.)

MR. CRABTREE: About the definition on "film gate," I think—

PRESIDENT JONES: That matter has been passed by this session and you are out of order unless you make a motion to reconsider the question of "film gate."

(Rising vote thereupon taken and passed that the definition of "film gate" be reconsidered.)

MR. CRABTREE: The recommendation is that the definition read: "A movable element which, when in operating position, holds the film in register against the aperture plate, and is provided with an opening through which the projected light passes." This applies only to projectors, not to cameras. I suggest that the definition be modified to read "and may be provided" instead of "and is provided" this covers cases where the gate has no opening.

MR. RENWICK: It appears to me that Mr. Crabtree's point is a very good one and I think the last part of the definition should be omitted entirely.

MR. NORRISH: I move that we leave out the latter part of the definition.

(Motion duly passed.)

PRESIDENT JONES: This, I believe, concludes the report of the Nomenclature and Standards Committee, and I think we owe them a hearty vote of thanks for the work they have put in.