COMMITTEE ACTIVITIES

REPORT OF THE STANDARDS AND NOMENCLATURE COMMITTEE*

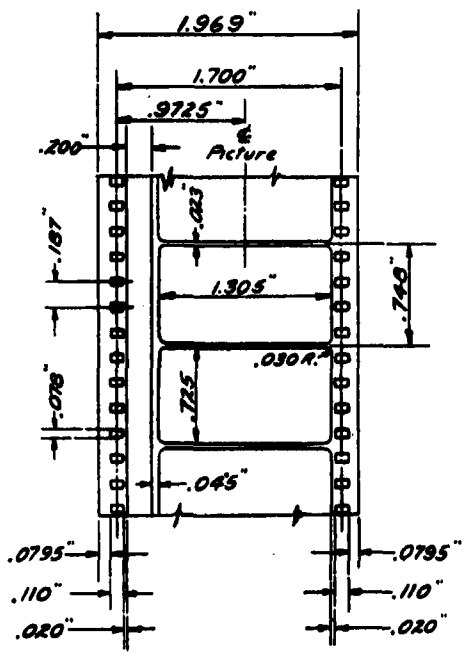
WIDE FILM

The last report on the work of this committee was presented to the Society at the New York meeting in October and appeared in the December, 1930, issue of the JOURNAL. The present report is concerned chiefly with the activities of a subcommittee consisting of Messrs. Batsel, *Chairman*, Evans, Griffin, La Porte, Shea, Spence, and Sponable, which was appointed to study the wide-film situation. The recommendations of this subcommittee (wide film) have been considered and approved by a majority of the Standards Committee, either at the meeting held in New York on May 2nd or by correspondence.

The problem of a satisfactory wide-film layout has been under consideration by this committee for some time, and previous reports have discussed its many obvious advantages and its economic limitations, due in part to the existence of a large amount of 35 mm. equipment. This committee has felt that the adoption of release prints having a width of 65 or 70 mm. is economically impractical and has, therefore, been working for some time on an intermediate film size that would have most of the advantages of the wider film but that could be used interchangeably with 35 mm. film in existing projectors after suitable alterations. As indicated in our last report, the ratio of picture width to height is constrained by the balcony cut-off and proscenium arch in existing theaters to be in the neighborhood of 1.8 to 1. The combination of a picture of these proportions, the feature of interchangeability with 35 mm. films, and provision for a sound-track of adequate width with suitable margins leads to a film approximately 50 mm. wide.

A tentative layout for a 50 mm. release print had been drawn up at

*Presented at the Spring, 1931, Meeting at Hollywood, Calif.



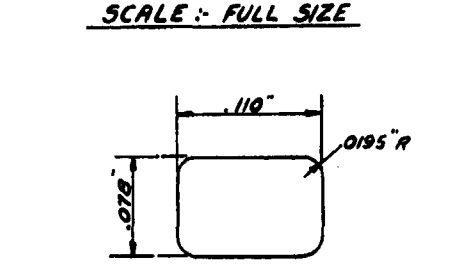
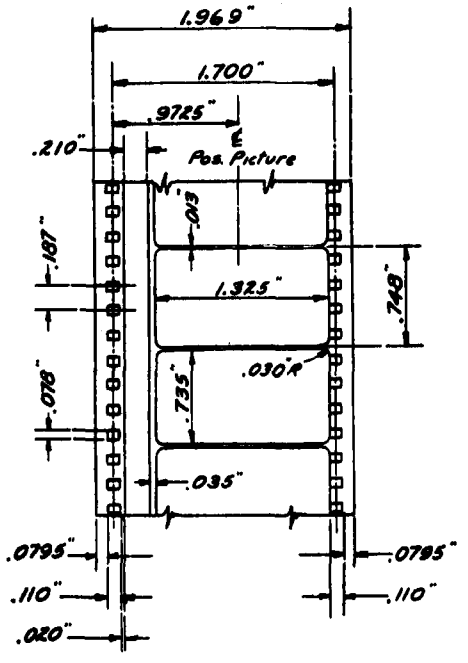


FIG. 1. Layout for 50 mm. unshrunk release print.



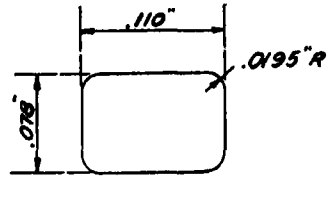


FIG. 2. Layout for 50 mm. unshrunk negative.

the time our last report was presented but it was not included with the report because the committee had had no opportunity of putting it to a practical test. Through the unstinted coöperation of Mr. Sponable and others, equipment for taking, processing, and projecting this film has since been made available to the subcommittee so that actual tests of the suitability of the new film could be made. It is the unanimous opinion of this committee that the new film has all the important advantages of the 65 or 70 mm. film, and that, due to its narrower width, all the major difficulties involved in handling the wider films have been eliminated. We are including in this report the layout drawn up by the subcommittee for a 50 mm. (unshrunk) release print (Fig. 1) and a 50 mm. (unshrunk) negative (Fig. 2.).

We wish to make it clear that, due to the present lack of interest in wide film on the part of the producers, we are not asking the Society for formal approval of the 50 mm. film dimensions at the present time. We are, however, publishing this report as a matter of record, so that when and if the industry desires to make use of the superior results achieved with the wider film, the results of this work will be available. It is contemplated that, if sufficient interest becomes apparent, a demonstration of the new film before the Society can be arranged at some subsequent meeting.

GLOSSARY

A subcommittee on nomenclature under the chairmanship of Mr. Rayton has prepared a careful revision of the glossary of motion picture terms that appeared in No. 37 of the *Transactions* of the Society. A large amount of work has been done on this project to bring the definitions into line whenever possible with those already adopted by other societies such as the Institute of Radio Engineers, the American Institute of Electrical Engineers, the Optical Society of America, the Illuminating Engineering Society, and the Academy of Motion Picture Arts and Sciences. Mr. Rayton's subcommittee has been very ably assisted in this work by Messrs. R. E. Farnham, Clifton Tuttle, T. E. Shea, and Sylvan Harris (editor-manager). The glossary will appear in an early issue of the JOURNAL.

STANDARD PRACTICE

The subcommittee on standard practice under the chairmanship of Mr. Rackett has carried forward the program previously outlined

(*J. Soc. Mot. Pict. Eng.*, XV (Dec., 1930), p. 818.) but has no formal report to make at this time.

A. C. HARDY, *Chairman*

J. O. AALBERG
M. C. BATSEL
W. H. CARSON
L. E. CLARK
J. A. DUBRAY
P. H. EVANS
R. E. FARNHAM
L. DE FOREST
H. GRIFFIN
R. C. HUBBARD
L. A. JONES
N. M. LA PORTE
G. A. MITCHELL
G. F. RACKETT
W. B. RAYTON
C. N. REIFSTECK
V. B. SEASE
T. E. SHEA
J. L. SPENCE
E. I. SPONABLE

L. T. TROLAND

DISCUSSION

MR. DUBRAY: To all appearances, the size and shape of the perforations as recommended offer dimensions suitable for 50 mm. film which would prove adequate, especially considering that the rectangular perforation is recommended for both negative and positive.

I have been in Hollywood for the last six months and have conducted a personal investigation from which it appears that the ratio 1 to 1.8 for the motion picture image is not in accordance with the apparent needs of the artistic workers in the motion picture field. Cameramen, directors, art directors, *etc.*, object quite strenuously to such an elongated form of the screen, contending that it is not adequate for the proper pictorial presentation of the great majority of motion picture scenes.

The Committee has been, in my estimation, considering a maximum width necessary to fill the proscenium, and has suggested a height suitable to the geometry of the auditorium. However, I do not believe that it is essential to cover the entire width of the proscenium, and it appears that a ratio of approximately 3 to 5 better answers the requirements of the artistic workers of our industry.

I would like to suggest that very close collaboration with the American Society of Cinematographers and the Academy of Motion Picture Arts and Sciences would be highly desirable in order to arrive at a better understanding than we have today.

MR. BATSEL: In deciding upon the 1.8 to 1 ratio, consideration was given not only to the dimensions of the theater stage openings, but also to the ratio which would permit the picture to be viewed without allowing the edges of the picture to intrude upon the viewer's consciousness. Everyone will agree that with the present dimensions of the picture, one is always more conscious of the sides than of the top and bottom. When viewing the 2 to 1 picture, one is conscious of looking through a window which is too wide. These pictures were

viewed under various conditions, and appear to be very easy to look at without being overly conscious of the sides or top, although the ratio is not the whirling square ratio which the artist likes. I think that it most fully meets the requirements of the theaters and at the same time gives one a wider angle of view than the 1.6 to 1 ratio. The dimensions of the perforations were debated for many hours. I cannot begin to repeat the arguments that were given for wider perforations or for the standard perforations. But after many meetings, everybody who attended was convinced that the recommended perforation would be satisfactory. Mr. La Porte has done considerable work with this film. Mr. Sponable has had experience with 70 mm. film and has tested the 50 mm. film with standard perforations. Others have run many 63 and 65 mm. film with the same perforations, and all the data we could accumulate indicated that it would be perfectly satisfactory.

MR. GRIFFIN: For the sake of argument, we might all agree with the artists in so far as their opinions on the size of the picture are concerned. However, the artists and the directors are not dealing with the theater. They are dealing with the artistry of the picture, and are doing a good job. However, a very comprehensive survey was made which definitely indicated that pictures of dimensions other than those which have been submitted would in the majority of cases be impracticable. The proscenium arch and the balcony height, and all the things to be considered when changing the size of the picture, must be very carefully considered before standardizing on a definite size of picture.

PRESIDENT CRABTREE: Should we not establish what is the best proportion and in the future design theaters accordingly?

MR. GRIFFIN: That would be an ideal procedure, but there are already 22,000 theaters in the country into which we may have to put the new picture, and it would not be well to standardize on any size that would not be suitable for all these houses.

MR. SCHLANGER: The proscenium arches are made of metal lath and can be altered to accommodate the right size picture, and the balcony seating arrangement can be changed as well.

MR. GRIFFIN: That may be true in many instances, but consider this proscenium. It would be a difficult matter to move it without going to the outside of the building; and such a condition exists in the majority of theaters not constructed along the lines of the *de luxe* houses. It is not a matter of height, but of width, and if we extend the picture to the side walls of the theater it would be a rather poor thing to look at. It must be framed according to the size of the theater in which it is being presented.

MR. DUBRAY: I agree with some of Mr. Griffin's statements, but I am afraid that my statements have been misunderstood. I do not intend to suggest that a screen having a 3 to 5 ratio should fill the total width of the proscenium. This would, of course, not permit people sitting at the rear of the auditorium to see the entire height of the picture.

What I intended to say was that a maximum possible height should be determined, letting the width of the screen take care of itself in the proportion of 3 for the height to 5 for the width.

MR. GRIFFIN: While the 3 to 5 ratio may be artistically good, it is still open to the objections I have already stated. But there is another consideration—

we are talking in terms of wide film; and I have seen pictures of various ratios projected, including that suggested by Mr. Dubray, and those approximating that ratio seem only to be glorified 35 mm. pictures. They do not give the effect which we all seem to be after—the so-called wide picture. Mr. Dubray has not seen actual samples of film made by the Committee for our use. They are really beautiful, and as Mr. Batsel said, are very easy to look at.

MR. SCHLANGER: As far as the structure of the building is concerned, I agree that one must sacrifice width for size of structure. However, there may be simultaneous actions occurring on both sides of the picture, and if the film is too wide it may be difficult to connect both actions with the proper vertical accent which affects good picture positions.

PRESIDENT CRABTREE: Mr. Hardy emphasized the importance of the interchangeability of the mechanism for use with 35 mm. film. What saving would that involve—that is, what is the difference in price between such a combination machine and a new machine to handle the 50 mm. exclusively? One would assume, of course, that the 35 mm. film would be retained until the industry is ready to switch to the 50 mm. type.

MR. GRIFFIN: In order to introduce wide film at all it would have to be introduced in a very economical way. Two sets of equipment cannot be installed in any projection room; certainly not in 90 per cent of the theaters. That means that it would be impossible to introduce wide film to any large extent with the existing 35 mm. equipment installed. The problem, then, is to make equipment that can be changed within a few seconds so that either 35 mm. or 50 mm. film can be run on the same equipment. The cost of building 50 mm. equipment would not be much greater than the cost of building the present equipment, but it would not have the interchangeable feature. It so happens that 50 mm. film can be readily installed in any of the theaters with the existing type of equipment at a very nominal cost. I cannot give the price because that data is not available.

PRESIDENT CRABTREE: Could you outline exactly what has to be done to change over the machine?

MR. GRIFFIN: The same intermittent movement, the same shafts, and the same gear ratios are used as in the 35 mm. equipment, but the sprocket structure is simply lengthened out so that one end of the sprocket may be pushed in for 35 mm. film and pulled out for 50 mm. film. The second change is to pull out the 35 mm. aperture and substitute a 50 mm. aperture and guide for the 50 mm. film. The only other change necessary is to replace the gate which can be done in a few seconds. The same procedure applies to any sound equipment, and the magazines must be widened by using a new door. These features are very inexpensive as compared with the cost of new equipment specially built for one size of film.

PRESIDENT CRABTREE: Will such sprockets get out of alignment and perhaps damage the film?

MR. GRIFFIN: Not with the construction under consideration. The feed sprocket and hold-back sprocket are easily changed, and only a relative amount of accuracy is required; but greater accuracy is necessary in the case of the intermittent sprocket. The problem is far from being insurmountable.

PRESIDENT CRABTREE: I would like to suggest to the Chairman of the Com-

mittee that in order to enable the members who did not have the opportunity to attend this meeting and to hear all these intimate discussions to vote intelligently, the report might be somewhat elaborated, including a few of these reasons why the Committee has arrived at this decision.

MR. JONES: It seems to me that the Committee has proposed a very definite disposal of this report. As Mr. Hardy points out, the Committee is not proposing a standard to be adopted by the Society at present, but has presented the conclusions it has reached up to the present time. If I understand correctly, the Committee proposes to let the matter rest in this state until such time as it seems expedient for the Society to take a definite action and I think Mr. Hardy, after this discussion, will present further facts for the adoption of this matter. Our course is to accept the report of the Committee and to do with the report just what the Committee asks us to do. This is a tentative recommendation.

MR. SHEA: It is greatly to be hoped that at the next convention Mr. Sponable will be able to give a demonstration with his apparatus such as he gave to the members of the Standards Committee, and it is also to be hoped that Mr. Griffin will describe his projector. Until this shall have been done, discussion of details seems ineffective.

MR. GRIFFIN: The equipment will be available at the next convention if it is desired. The wide film program was started by one manufacturer and did not meet with the approval of other producers. We do not want to force the matter of standardization but we do want the producers to study the matter carefully and come to their own conclusions.

REPORT OF PROJECTION SCREENS COMMITTEE

The Projection Screens Committee commenced its operations in March. The first meeting was held on April 16th in New York, N. Y., at which the Chairman submitted a preliminary outline of the work proposed for the Committee to undertake. This outline was discussed and elaborated and as a result a second and more detailed outline was prepared and distributed among the members. The second meeting was held on May 14th. This preliminary report is based largely on material submitted and examined at that time.

The main lines of endeavor are outlined as follows: Manufacture of Screens, Mechanics, Light Reflection Properties, Sound Transmission, Illumination, and Rear Projection Screens. Responsibility for the different sections has been assumed by the members with regard to their familiarity with the different fields. Considerable data will be collected on light reflection properties, brightness values of screens in theaters, and manufacture, installation, and maintenance of screens. It is also hoped that the Committee will be able to make recommendations as to the type of screen to employ under specified conditions of use.