PRESIDENTIAL ADDRESS

DELIVERED AT THE OPENING OF THE FALL MEETING AT SWAMPSCOTT, MASS., OCTOBER 5, 1931

For this, the fifteenth anniversary of our Society, I think it is fitting that we have chosen a location far from the madding crowd where we shall have more opportunity for mutual acquaintance and individual thought than is possible in a large city.

The world was never in greater need of new ideas than it is today. I am hopeful that in days to come we can trace many of the industry's outstanding technical achievements to ideas which had their birth at our Swampscott Meeting.

Although the period of my administration as your chief executive is almost ended, I feel happy that I have been privileged to assist in developing the Society to its present stage of prestige and usefulness to the industry. During the past two years several important milestones have been passed in the course of the Society's growth including the publication of a monthly JOURNAL instead of quarterly *Transactions* and the acquisition of headquarters in charge of a paid editor-manager while a considerable number of sustaining memberships have been acquired to contribute toward the necessary funds for these innovations.

Two new sections have been founded in New York City and Chicago, which have materially aided in furthering the objects of the Society. As a result of our conventions which have been held in the key cities of Washington, New York, and Hollywood, our Society has become better known to the production interests, the scientific world, and the nation at large.

Our Society has also made available a large amount of knowledge resulting from the coöperative efforts of the various committee members. The subject of projection has been given increasing attention by the Projection Practice, Projection Theory, and Projection Screens Committees. As a result of the efforts of the Standards Committee, an authentic glossary of technical terms employed in the industry has been published and also a booklet of

Standards adopted by the Society. This committee has also offered a solution to the wide film problem by recommending the adoption of a 50-mm. standard. The Progress Committee has provided the industry with a comprehensive bi-annual report of technical advances in the industry gathered from world-wide sources, while the Historical Committee has conducted researches and contributed several papers to our JOURNAL dealing with the accomplishments of some of the industry's engineering pioneers and has assembled an exhibit of historical apparatus in the Los Angeles Museum.

Valuable reports have been contributed by the Color, Sound, and Studio Lighting Committees, while the quality of the papers assembled by the Papers Committee for our conventions has been of the highest order. Any success which our conventions have achieved has been due largely to the efforts of the Papers, Convention, Membership, and Publicity Committees.

But our main concern is with the future, and with ways and means of increasing the usefulness of our Society to the industry. Now that the routine work of the Society is no longer a burden to the Society's officers, in future they will be able to devote more time to the organization and coördination of the Society's various activities.

One of the most pressing needs of the future is the wider distribution of our JOURNAL especially among the younger technicians in studios, laboratories, and theaters, who are anxious for the knowledge which it contains but cannot subscribe to it on account of its relatively high cost. It is our vital obligation to devise ways and means of reducing the non-member subscription price of the JOURNAL from $12 to $6.

This is not an easy matter to accomplish because our annual expenses are exceeding our income by about $6000 but fortunately, we have a treasury surplus of about $24,000 which will take care of this overrun for some years to come. It has been suggested that the deficit be taken care of by means of advertisements in the JOURNAL but I think it highly desirable to dissociate our activities from any semblance of commercialism and to maintain our JOURNAL as a compact library of technical information worthy of preservation in its entirety. Undoubtedly, an intensive campaign for JOURNAL subscriptions and sustaining memberships would take care of this financial situation and I have appointed a special committee to investigate the problem.

Our Society must also take a more aggressive part in the technical

activities of Hollywood. Our spring convention was the means of bringing more forcibly to our attention the fact that Hollywood is not merely the center of studio production but is rapidly becoming the leader in laboratory processing. Hollywood now contains more than 1000 technicians who are enthusiastic and anxious to coöperate, and the fact that this personnel is centralized makes it possible to get coöperative results quickly with a minimum of lost motion. A spirit of friendly rivalry keeps everyone constantly on his toes but the extreme pressure of work permits experimenting only on problems of immediate practical importance, and there is no time whatever for fundamental research.

In Hollywood there also appears to be a tendency for the production interests to rely almost entirely upon the Academy of Motion Picture Arts and Sciences for advice and collaboration on technical matters. This is only natural because the Academy is sponsored and subsidized by the producers themselves and the production executives take a personal interest in and devote much of their time to its various activities. With the support and interest of the higher executives, they are therefore tolerant that their employees shall spend the time and money of their firms in the interests of the Academy.

It should also be realized that the producers in Hollywood have agreed to be non-competitive—their only competition is rivalry in blending together the story, technical effects, and artistry to produce the best motion pictures possible.

Let us compare for a moment the activities of the Academy and our Society, and the objects for which each is striving. To date our interests have been focused largely on the tools of the industry and the fundamental principles of science which lead to their development. The attention of the Technicians Branch of the Academy, on the other hand, has been devoted largely to problems relating to the application to production of the tools which the engineer has already devised although, rightly, it has concerned itself with the tools themselves when suitable ones were not available, thereby stimulating the manufacture of more suitable equipment.

Since most producers are now also in the business of processing and exhibiting motion pictures, they should be interested in all technical problems of the industry and in the coöperation which our Society is capable of giving.

Both our Society and the Academy are concerned with four principal lines of endeavor, namely, education, publication, standardiza-

tion, and coöperative research. Let us examine more closely the activities of each organization in these categories with a view to determining where closer coöperation is possible.

One of the first activities of the Academy on the introduction of sound was the establishment of a school of instruction in sound, which was a means of quickly educating the production personnel in Hollywood in the elements of this new adjunct to motion pictures. Courses of lectures have also been given at universities but only those persons located in the west have been able to avail themselves of these opportunities.

To date, organized education has not been attempted by our Society. However, symposiums on various topics have been given at our semi-annual conventions and the discussions at the meetings of the various sections in New York, Chicago, and Hollywood have served to educate those interested. At each of our conventions tutorial lectures have been given on specific subjects by outstanding experts in their field and this policy should be continued.

Also, as a result of encouragement by our Society and our offer to assist in supplying special lecturers on specific topics, one of the eastern universities is considering the establishment of a special course in the fundamentals of the various sciences which are particularly applicable to the motion picture industry. This work should be pushed forward with a view to soliciting the assistance of other educational institutions. It is the obligation of the industry to give its moral and financial support to such a project because it will be the means of supplying the industry with man power adequately grounded in fundamentals.

The officers of our sections should also make an effort to promote lectures on subjects appertaining to motion picture technology before various scientific groups and thereby bring greater prestige to our Society.

To date, the publication of technical knowledge by our Society has been restricted to articles in our JOURNAL. Publications by the Academy have consisted of pamphlets and books on specific subjects including incandescent lighting *vs.* arc lighting, the silencing of cameras, and sound recording. Much of the information in the latter publication was published in the *Transactions* of our Society two years previously although it was not quite as complete or in assembled form.

It is highly desirable that books and monographs on specific topics

be prepared and published under the sponsorship of our Society. Tentative plans for such publications are now under consideration.

However, there is need in the industry for all the educational facilities available. Even if the Academy and our Society do duplicate instructions, no harm will be done. On the other hand, the greatest benefit is often derived when two investigators tackle a problem independently—they often see the problem from different angles and their combined researches tend to constitute a more complete solution of the problem. Education of the masses is only effected by repeated doses.

One of the chief functions of an engineering organization is the standardization of mechanisms and practices. To date our Society has established standards for films and the essential parts of mechanisms which have been approved by the American Standards Association and have received international recognition. These have been published in booklet form and are available *gratis*. The Academy has performed a useful service in formulating a standard for release prints and is actively engaged in the study of various problems with a view to the standardization of practices.

Our Society has not been as aggressive as it ought to have been in effecting the standardization of practices. Such matters as the standardization of screen brightness, sizes of camera and projector apertures, the density characteristics of projection positives, the desirable gammas in the processing of film, the measurement of light intensity in the studio so that when a negative is developed to a definite constant gamma the print will give the artistic effect desired—these and other problems are urgently in need of solution.

These problems rightly come under the scope of activities of the Standards Committee which should charter the coöperation of the various committees for specific technical data and should encourage them to arrive at standard specifications. In most cases it will be necessary to perform research work or to secure experimental data. Although it is not the function of a technical society to establish a research laboratory, it can act as a collecting and coördinating medium for research and encourage various individuals and firms to contribute data and perform specific experiments.

It is unfortunate that in view of the competitive situation with regard to the tools of the industry many available technical data are deliberately being withheld from publication. However, when an outstanding technical society asks for specific information from these

firms the request is rarely refused so that by an aggressive attitude on the part of our Society, a great deal of valuable information could be assembled.

It is also quite possible for an aggressive committee to perform research work and tests, as instanced by the Projection Screens Committee which has conducted practical tests on screen brightness with the committee members as observers, and our Wide Film Subcommittee which has made practical tests with films of various sizes.

The difficulty involved is, of course, to find men who are willing to devote sufficient of their own time or are permitted to devote the necessary portion of their employer's time to the direction and following up of these problems. The only answer is that ultimately our Society must either make arrangements that its own manager shall continually stimulate these committees or that efforts be made to persuade some individual or an employee of some producing or manufacturing concern to devote his time exclusively to these problems.

Our Society can also assist in the more rapid accumulation of knowledge by creating the necessary funds for the establishment of fellowships in universities. Two universities have intimated their willingness, provided the necessary funds are forthcoming, to create such fellowships for investigations of a fundamental nature cognate to motion picture technology. The fellowships would be administered with the collaboration of our Society.

But what should be our policy toward Hollywood? We should establish headquarters there with a part or whole time paid secretary or manager. When these are established, it would be fitting to alternate the location of the national President and the majority of the Board of Governors between Hollywood and New York City. Duplicate committees should be appointed in both the East and West to study any given problem such as laboratory processing, studio lighting, projection practice, *etc.*, and the efforts of these committees should be carefully coördinated. It is also becoming increasingly necessary to hold a convention at least every two years in Hollywood.

Our Society can, of course, never be of the utmost service to the producer until their chief executives are tolerantly disposed toward the Society and realize more fully its potential value to them. Our recent convention in Hollywood was a most important factor in helping to establish this relation but there must be aggressive follow up work.

Although I have spoken previously of the excellent work of the

various committees, there is much useful work to be accomplished, and additional committees should be appointed. The responsibility for the technical merit of the contents of the JOURNAL should still rest in one individual, namely, the Chairman of the Papers Committee, and he should also be the Chairman of the Board of Editors whose main function is to review papers submitted by the Papers Committee. This Board, however, should consider carefully the expansion of the usefulness of the JOURNAL by establishing sections dealing with new apparatus and the technical publications of manufacturers of interest to our members. There is also room for improvement in the quality of the paper and illustrations used in the JOURNAL. Possibly an increase in the page size would add to its legibility.

There is much work ahead for the Projection Theory Committee. Problems requiring investigation and study include those of possible eye-strain produced by the motion picture, the merits of non-intermittent projection for two-color additive photography, and the possibilities and limitations of rear screen projection.

The work of collecting historical apparatus and the placing of this in a permanent depository needs to be pushed forward more actively in the east. The problem is to find some individual who is sufficiently enthusiastic and can afford to make it a labor of love. There should be duplicate exhibits in both the east and west—the donor should stipulate where he wishes the apparatus exhibited—and a replica or photograph should be placed on record in the complementary depository. I cannot emphasize too strongly the importance of establishing such exhibits and museums because apart from helping to prevent bogus patent applications, they would constitute an ever present stimulant for new ideas. Our Society should also keep in mind the desirability of establishing a library at its headquarters.

There is need for additional committees to deal with safety problems, laboratory processing, theater construction and equipment, and an inter-society relations committee consisting of representatives of societies having interests cognate to our own. This committee should report on those activities of these societies which may be of interest to our members. I have in mind societies such as the Acoustical Society, the Optical Society, the Institute of Architects, and the Institute of Radio Engineers. The possibility of holding joint meetings with some of these societies should also be considered.

Our Society has always coöperated closely with the American Standards Association, the International Congress of Photography,

and the Deutsche Kinotechnische Gesellschaft, but the scope of these contacts should be enlarged.

The Society of Motion Picture Engineers should eventually be the principal medium for stimulating, collecting, and coördinating the technical and scientific knowledge in the motion picture industry, but this goal can be attained only by greater centralization of the Society's activities under the stimulating guidance of a permanent officer.

In this, my valedictory, I should be ungrateful if I did not remind you of the loyal support which I have received from your Board of Governors and the consistent efforts of the various committee members and committee chairmen who have given unsparingly of their time and energy in the interests of the Society. I especially wish to thank our Treasurer, Mr. H. T. Cowling, for his valuable counsel and undaunted encouragement during my administration.

J. I. CRABTREE, *President*