

The SMPTE Journal and Other Publications: SMPTE's Continuing Commitment to Information Dissemination

By Jeffrey Friedman

Since the Society was founded, it has always had a means of publishing technical information. The Society's publishing program began as soon as the organization was founded with the publication of *Transactions* No. 1. This volume contained the certificate of incorporation, the constitution and bylaws, and an address on standardization by Henry D. Hubbard, Secretary of the U.S. National Bureau of Standards, who had spoken before the Society at its first meeting in Washington, D.C., on July 24, 1916.

From then on, the SMPE, as it was known prior to 1950, regularly published technical material. The Society's first publication was *Transactions of the SMPE*, in which were published the technical presentations given at the Society's meetings and conventions. In 1930 the *Transactions* became the *Journal of the Society of Motion Picture Engineers*. When the Society added *television* to its name in 1951, the magazine became the *Journal of the Society of Motion Picture and Television Engineers*. In 1976, the title was changed to the *SMPTE Journal*.

The *Transactions* was changed to the *Journal* in 1930 because it was thought that to publish only material from the Society's meetings in a quarterly periodical was too limiting. With the transition to a monthly journal, the Society could publish papers faster and could also include material that came from other sources, such as foreign journals.

The decision to change from a quarterly *Transactions* to the monthly *Journal* was not a casual one. Among the most important considerations was financial support. At the time, the Society did not have a professional

editor, so the Chairman of the Journal Committee acted as editor *pro tem* until an editor was hired in October 1930. To help meet the increasing financial obligations incurred by the new journal, the Society created three classes of sustaining members, the subscriptions for which were \$1000, \$500, and \$100. Thus sustaining membership got its start.

The *Journal* has always been a publication whose function is to document current significant technical developments and thus become the repository of engineering information for future engineers and researchers. Though that notion remains a constant, the focus of the *Journal* has shifted since its early days.

The evolution of motion-picture and television technology is followed in the pages of the *SMPTE Journal*. When sound was first introduced, the *Journal* documented many of the significant developments. When color film emerged, the Society documented it. When the Society included television in 1950, the technology was past its infancy, but substantial future developments were still ahead. The Society had always published relevant information of interest to its constituency, including material about television long before the word became part of its name.

The *Journal* has been a mirror that reflects the significant issues of the technologies it serves. There is a correlation between the number of articles published on a specific subject at a given time and the amount of interest among *Journal* readers in that subject.

Each year's volume of *Journals*, including the Progress Report, is a snapshot of the moving-image industry. What has been published in the *Journal* represents the leading edge of technology in both motion pictures and television.

In 1928, for example, one year after the commercial introduction of motion-picture sound, the Society had, at its convention in Lake Placid, N.Y., a program devoted entirely to sound. When published in the *Transactions* that year, the papers filled almost 300 pages. It was, at that time, one of the most complete collections of information on motion-picture sound available.

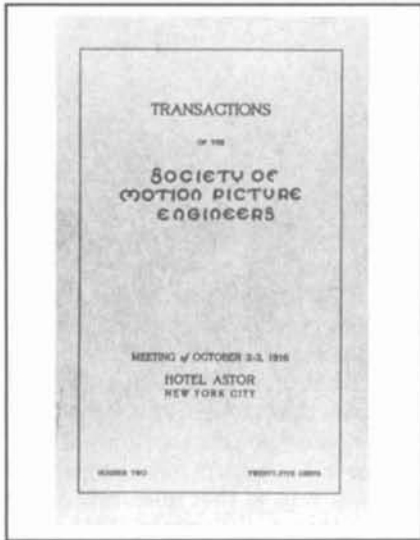
Now there are many articles on such new subjects as signal processing, digital television, and HDTV. On the motion-picture side, there are new developments still being documented, such as new bar-code technology; most of it, however, has an electronic spin. Many articles published today are on subjects similar to those of days past, giving historians an opportunity to trace the advancement of such important technologies as sound, lighting, optics, and film.

Subjects that were very important at a certain time in the SMPTE's history no longer appear in the pages of the *Journal*. Instrumentation and high-speed photography used to be one of the Society's major areas of interest, but as the number of members in the field decreased and the interest of other organizations increased the Society dropped the subject from *Journal* coverage.

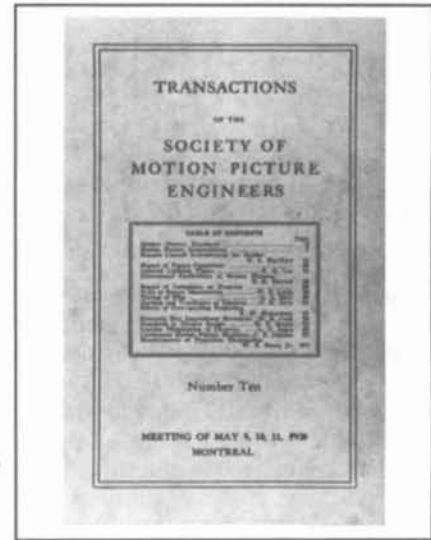
Articles on other subjects that once were of primary interest to the Society gradually disappeared from the *Journal* pages because there were fewer people in these fields to write the articles. The Society had many standards for film projection and dozens of articles on the subject. In fact, the definitive book on projection practices had been published by the Society. Yet few articles on projection and theater practices have been published in recent years, not because of willful neglect, but because there were fewer people submitting such papers.

Jeffrey Friedman is Editor of the *SMPTE Journal*. Copyright © 1991 by the Society of Motion Picture and Television Engineers, Inc.

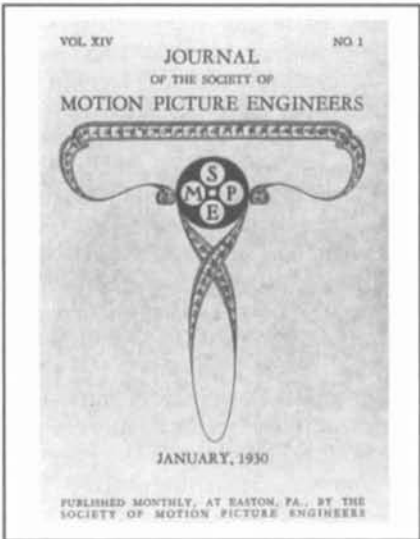
Transactions/Journal Covers



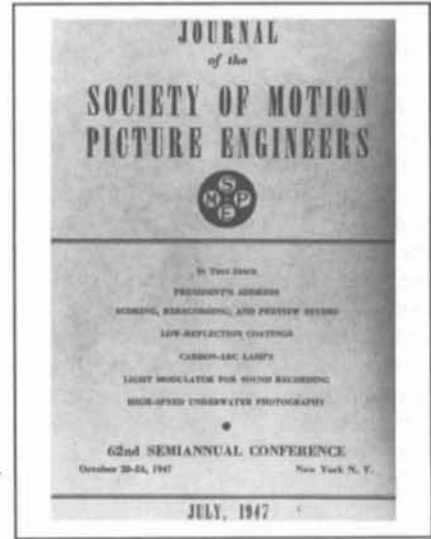
◀ Design of digest-size Transactions beginning with No. 2, Oct. 1916.



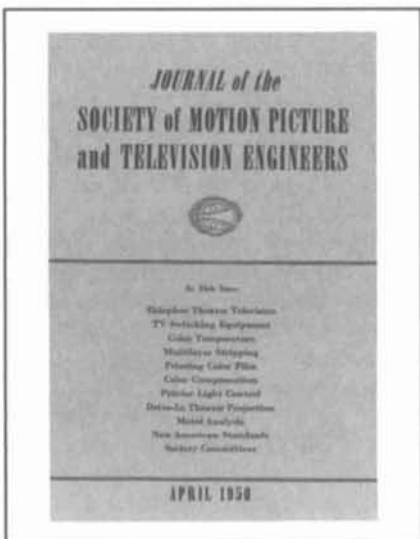
▶ In 1920, the Transactions published the table of contents on the front cover.



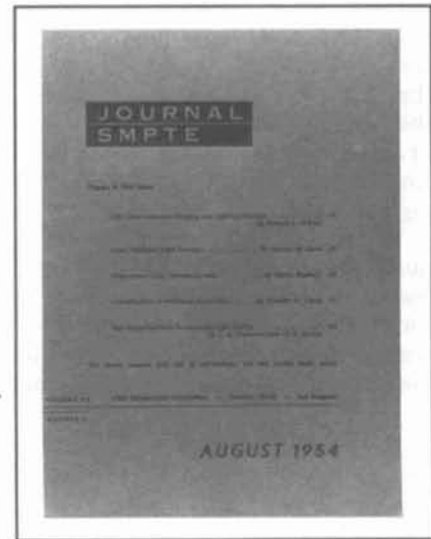
◀ First issue of the newly-named Journal of the Society of Motion Picture Engineers.



▶ Later version of the Journal, still digest size.



◀ When the Society embraced television in 1950, the title of the Journal was changed to Journal of the Society of Motion Picture and Television Engineers.

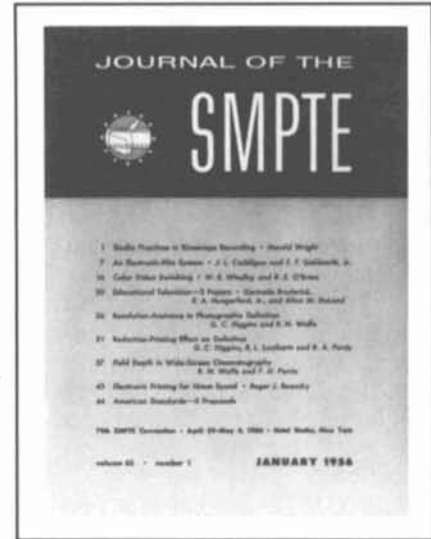


▶ In 1954 the Journal went full size, to accommodate standard advertising dimensions.

from 1916 to the Present



◀ A redesign of the front cover in 1955. Note absence of the letters SMPTÉ in the logo.



An enhancement of the previous year's cover design change, returning the name Journal of the Society of Motion Picture and Television Engineers. This design continued for almost 20 years.



◀ With the official change in name to SMPTÉ Journal, the publication was again redesigned in 1976.



The first issue with an illustration on the front cover.



◀ In the 80s, illustrations graced the Journal's covers, often in full color. Here is a new design of the Journal headpiece.



The Journal today, again with the contents on the front cover, but with a contemporary look.

Journal Quality

Quality has always been the trademark of the *Journal*. Writing in the first issue of the *Journal* in January 1930, Loyd A. Jones, the editor *pro tem*, said, "The [Journal] Committee and the Board of Governors are unanimous in agreeing that every effort must be made to keep the *Journal* on the highest technical plane. The Society of Motion Picture Engineers has, during the past years, earned the respect and esteem of the motion picture industry largely through the high quality of its *Transactions* and its freedom from any taint of commercialism. Our new *Journal* must be in harmony with this reputation, for this reputation is one of our most valuable assets and must be safeguarded at all costs."^{*}

The *SMPTE Journal* is a peer-reviewed publication. All papers submitted to the SMPTE go through a thorough review process, which insures that only the best papers are published. Papers are first read by the Chairman of the Board of Editors, Fred Remley, University of Michigan. He assigns each paper to four members of the Board of Editors, based on the subject of the paper. Thus, each paper is evaluated by four experts.

Once the review process is complete, papers are selected for the *Journal* based on the reviewer evaluations. More than 50% of the papers reviewed are not published in the *Journal* because they fail to meet the high standards that a peer-review system provides.

The peer-review system also provides another advantage. Reviewers often give advice on how to improve the papers, so that the authors have the added benefit of additional expertise. This review process insures editorial excellence, something the SMPTE has always had reason to be proud of.

The SMPTE is fortunate to have the top people in their fields as members of the Board of Editors. Their knowledge and expertise guarantees that the *Journal* will continue as a high-quality publication bringing its members accurate and reliable information.

Aside from its technical content and minor cosmetic changes, the *Journal* has been remarkably constant in

its look and general focus. It has remained fundamentally a serious, no-nonsense publication aimed at documenting significant technical developments with a minimum of commercialism. The *Journal* has evolved into a useful, readable publication with a standardized format, amply sized graphics, and large type. It is edited for a diverse readership, including many individuals who may not understand specific articles without the special treatment that is given to make each article comprehensible to as many readers as possible. Though it is impossible to be all things to all members, the *Journal* is published with an eye toward serving a readership that is changing and diversifying.

Journal publication is the responsibility of the Editorial Vice-President, a position now held by Frank Haney, Fox Television Stations. The *Journal* is published by the headquarters editorial staff under the supervision of the Editor.

Except for the ten-year period from 1981 to 1990, the *Journal* cover has tended toward a scholarly, academic appearance. Early covers displayed the name and logo, and in later years included the list of papers. It wasn't until late 1981 that illustrations began to appear on the cover, and from then through December 1990, there were graphics or photographs from *Journal* articles on the cover. Often full-color photographs appeared. It was decided, however, for the January 1991 issue, to return to a cover with only the table of contents, for both financial and aesthetic reasons.

Features

Though the publication of technical articles has always been the main purpose of the *Journal*, other features have appeared in the *Journal* from time to time. Standards have appeared since the beginning, but not monthly as they do now.

News has been a part of the *Journal's* editorial content for years. At the beginning, it appeared as Society announcements. It later went under the name of "News and Notes," then "Education," "Industry News," and most recently just "News." Now *News & Notes* is the name of the Society's monthly newsletter.

In October 1947, it was decided that news about members, as well as new product information, would be published. The announcement point-

ed out that new product news should be about items of outstanding interest to engineers and that the scientific value, not the commercial aspects, should be stressed. This policy continues.

Biographies of prominent members have appeared in the *Journal* from time to time in different forms. In the 1940s they went under the name of "Purely Personal." More recently, the term "Biographical Notes" was used. Also on a personal level, the Society has published obituaries since 1927. During World War II, lists of members of the Society lost in the service of their country were published.

In February 1951, it was announced that abstracts of technical articles, published elsewhere but not generally available to members, would be published. Also, reports on section meetings would be included in the *Journal*. These items are still published. Section meeting reports appear in most issues of the *Journal*. Abstracts of papers from other publications are published occasionally, when available.

Progress Report

The first Progress Report, published in May 1920, was reprinted in the April 1991 Progress Report issue of the *Journal* in commemoration of the Society's 75th anniversary. The reprinted version was only 2½ pages compared with the 1990 report in that issue, which was 75 pages.

One could assume that the variance represents the amount of new technical information available then and now. Since that was the first such report, methods were less elaborate than those used today. In those days, members of the Progress Committee sought the information individually, and in some ways it was probably more difficult to collect.

Early reports concentrated only on motion-picture technology, which was still in its infancy. Sound was not yet a part of conventional motion-picture technology. Now, SMPTE Progress Reports span all the technology of motion pictures, television and, of course, sound. There is a lot more technology today.

In the early days, the Progress Committee actually produced the entire report. Today, the Progress Committee is made up of experts who supply the Editorial Department with reports about developments in their countries. Most of the technical in-

^{*}"Our Monthly Journal," *J. SMPTE*, Jan. 1930, pp. 9-10.

formation is sent to Headquarters directly from manufacturers and organizations. Here the Editorial Department compiles and organizes the material and writes the report in *Journal* style. When it is completed, the report is given to the Editorial Directors for Motion Pictures and Television to check and to use to write overviews of their respective industries. The entire report is under the supervision of the Executive Vice-President, now Irwin Young, who serves as Chairman of the Progress Committee.

The Society's goal is to document the progress in the industries it serves. That the Society has been doing this since 1920 demonstrates the importance the Society places on having a record of the development of its technologies. The Progress Reports, combined with the technical papers that appear in the other issues of the *Journal*, provide the industry with a credible, documented record of its progress, to which members of the industry and researchers can refer for years to come.

Advertising

The society began accepting advertising in the *Transactions* in 1920. Indeed, the first issue in which advertising appeared had more than 16 pages of ads. These ads are interesting from a historical point of view because many of the companies running ads no longer exist (see layout of ads from 1920 issue elsewhere in this article).

Advertising was discontinued during World War II, but was reinstated in the July 1954 *Journal*, when the publication was enlarged to 8¼ × 11¼ in. to accommodate the standard 7 × 10-in. advertising size used by most other publications. The *Journal* has accepted advertising ever since.

The *Journal* has the policy of limiting advertising to only the back half of the magazine in the news sections. The reason for this is to avoid having the ads intrude upon the technical papers and to keep the ads near material on new products and other industry news. Having ads in the back has always been the policy of the *Journal*.

Employment advertisements have appeared in the *Journal* since 1932. When they were first established, there was a charge of \$2.00 for a single insertion and \$5.00 for three consecutive insertions. In recent years, the So-

ciety has had a policy of allowing members to advertise in the employment columns of the *Journal* without charge.

Other Publications

Though the *Journal* has always been the primary publication of the Society, it has published a wealth of other materials in its long history. Along with reprints of important *Journal* articles, the Society has published a long list of books. Indeed, the SMPTE has published at least one book a year since 1976. In 1989 the Society published two books, and two books will have been published by the end of 1991.

Many of the Society's books are collections of technical papers presented at Society conferences. Most of the books published since 1977 are compilations of papers from television conferences. This idea of publishing conference material originated early in the Society's history. For example, in 1948, the Society published *The Motion Picture Theater: Planning, Up-keep*. This book came about when, in 1947, it was decided that most of the 62nd Semiannual Convention of the Society, held in New York in October 1947, would be devoted to theater engineering. The papers presented at this conference made up the greater part of the 38 papers published in the book.

Between 1949 and 1954 the Society published a series of five volumes on high-speed photography. These books were published as supplements to the *Journal* but were available separately for many years. They were considered the definitive books on the subject at the time and were an important publishing achievement for the Society.

The Society published a number of books that were the result of important work done by engineering committees. In 1950, *Principles of Color Sensitometry* was first published as a report of the Color Sensitometry Subcommittee. It was considered so important that it was updated and republished twice after that, in 1962 and again in 1974. It was one of the Society's best-selling books.

In 1957, one of the most ambitious of the Society's books was published, *Elements of Color in Professional Motion Pictures*. It was initiated by the Color Committee with the intent that it would become a treatise on color for non-engineering people who play a role in motion pictures. The book,

which was put together by a special committee dedicated to the project, was successful and was republished in 1967.

Control Techniques in Film Processing, published in 1960, was prepared by a subcommittee of the Laboratory Practice Committee.

One of the most popular books in SMPTE history was *Special Effects in Motion Pictures* by Frank P. Clark, published in 1966. The book has been in demand since its original publication and has been reprinted three times. It still remains in stock and continues to be in demand.

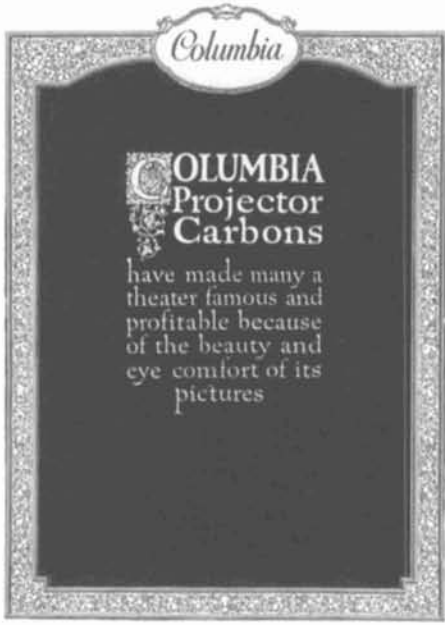
In 1969 the SMPTE published *Motion-Picture Projection and Theatre Presentation Manual*, another of its most popular books. It was reprinted three times and is still being sold by the Society. At the time of its publication, it was considered a highly significant book for cinema operators. That it is still in demand shows its intrinsic value.

Beginning in 1976, the Society published a new book each year containing the papers presented at the television conference. The first such book, *Television Newsgathering*, was successful and had a tremendous advance sale. The book sold more in a short time than any other SMPTE book because of the great interest at the time in ENG.

In the following year, 1977, SMPTE's classic *Digital Video* was published. It was to become one of the Society's best-selling books and was reprinted several times. It is still available. This book spawned two other popular books, *Digital Video II* and *Digital Video III*.

Many other books, too numerous to list, were published by the Society. They are part of the Society's commitment to the dissemination of significant technical information of a kind that would be difficult to obtain elsewhere. Many of the books were published, without the promise of profit, for no other reason than that the technology needed to be recorded, as part of the technology the Society serves. The engineers and technical people who are part of this industry have always been able to depend on the Society to obtain, organize, and disseminate information of value and importance. Information dissemination has, from the beginning, been one of the Society's primary functions. It has always done it well.

Advertisements Published in the



Columbia

COLUMBIA
Projector
Carbons

have made many a theater famous and profitable because of the beauty and eye comfort of its pictures

Write for information
NATIONAL CARBON COMPANY
Incorporated
Cleveland, Ohio San Francisco, Calif.
Canadian National Carbon Co. Limited, Toronto, Canada

I

Catering to the Moving Picture Industry

MOVING PICTURE WORLD	Yearly subscription price	Domestic \$3.00 Canada \$3.50 Foreign \$5.00
CINE-MUNDIAL (Spanish)	Yearly subscription price	\$2.00

Managers and Operators Handbook, by F. H. Richardson, 700 pages, price, \$4.00

Modern Theatre Construction, by Edward Bernard Kinisla, 270 pages, price \$3.00

Technique of the Photoplay, by Epea Winthrop Sargent, 400 pages, price, \$3.00

Motion Picture Theatre Electricity, by J. H. Hallberg, 280 pages, price, \$2.50

Picture Theatre Advertising, by Epea Winthrop Sargent, 300 pages, price, \$2.00

Making of a Photoplay, The, by Louis Reeves Harrison, 150 pages, price, \$2.00

CHALMERS PUBLISHING CO.
Wright & Callender Bldg., Los Angeles, Cal. 516 Fifth Ave., New York City Garrick Theatre Bldg., Chicago, Ill.

M. J. WOHL, President MAX MAYER, V.-Pres. & Treas.

M. J. Wohl & Co., Inc.

Electrical Engineers

Specialists in artificial lighting for photographic processes.

Sole manufacturers and distributors of "BROAD-SIDE" and "DUPLEX" lamps used throughout the film industry.

New factory and general offices
Paynter Avenue and Hancock Street
Long Island City, New York

II

Perfect Light for Studio Sets

Cooper Hewitt lighting is highly actinic, free from glare, perfectly diffused, easily controlled and absolutely uniform. It is the one ideal light for all photographic purposes, permitting as good pictures at midnight as at noon. It does not radiate heat and is easy on the eyes.

Ask any director, camera man or motion picture star about "Cooper Hewitts"—then write our nearest office to suggest a layout for your studio.

Cooper Hewitt Electric Company

1. Superior light
 2. Superior definition
 3. Superior economy
 4. Superior safety
 5. Superior convenience
 6. Superior portability
 7. Superior durability
 8. Superior service

Houston New Jersey Los Angeles-Orange Building Dept.
 BETTER THAN DAYLIGHT

THROUGH THE MEDIUM OF THIS CARD
F. H. RICHARDSON
PRESENTS TO THE
SOCIETY OF MOTION PICTURE ENGINEERS
THE COMPLIMENTS OF HIMSELF AND
THE MOTION PICTURE PROJECTIONISTS OF
THE UNITED STATES AND CANADA.

THE ELECTRIC SALES & ENGINEERING CO.

ELECTRICAL EQUIPMENT ENGINEERING SERVICE
 P. F. BURROWS, SALES ENGINEER OSCAR M. BRICK, CONSULTING ENGINEER
 2000 WASHINGTON ST. CLEVELAND, OHIO

COMPLETE ENGINEERING SERVICE AND PLANS
VENTILATING MOTION PICTURE PROJECTION ELECTRICAL
ILLUMINATING MECHANICAL

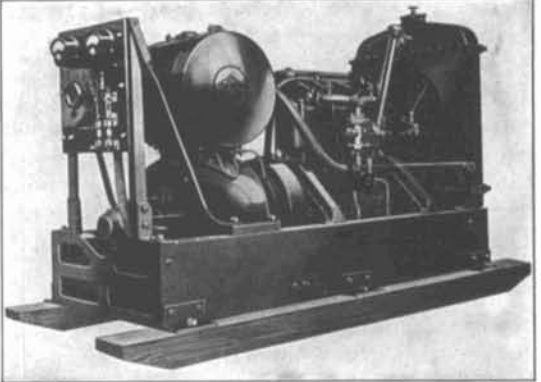
FOR MOVING PICTURE THEATRES AND PLAY HOUSES

III

IMSCO

Engines and Generators

The only Engines and Generators designed and built exclusively for
Motion Picture Projection and Studio Lighting



FROM 400 WATTS TO 25 KILOWATTS

KEENOLITE LENSES

THREE COMBINATIONS
32.5 PER CENT MORE LIGHT—28 PER CENT
BETTER DEFINITION THAN OTHER LENSES.

WILLIAM H. RABELL ENTERPRISES, INC.
729 and 844 SEVENTH AVENUE, NEW YORK

IV

Transactions of the SMPE, May 1920

Motion Picture News


Technical Department—contains full,
dependable and up-to-date scientific
information on

**Projection
Cinematography
Studio Equipment
Theatre Construction**

E. L. Bragdon, B. S., Technical Editor
E. B. Janvrin, B. S., Associate Technical Editor

Address:
729 SEVENTH AVENUE
NEW YORK CITY, N. Y.

v



Westinghouse Motion Picture Installations

Realizing that the successful operation of electrical equipment of a motion picture studio or theatre depends upon its ability to meet ever changing requirements, Westinghouse has made a special study of these requirements. This places Westinghouse in a position to render valuable engineering service to hundreds of studios and theatre owners.

The following are some of the users and exhibitors of Westinghouse apparatus:

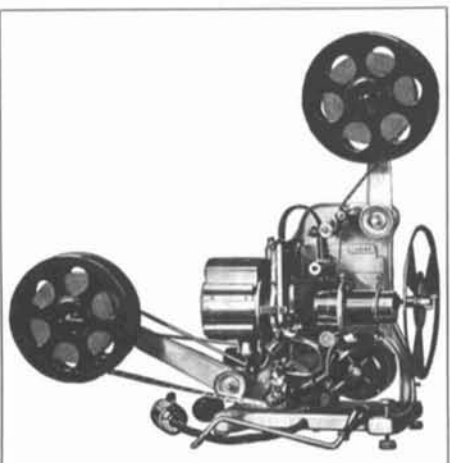
<small>Metro Pictures Corp. The H. Luce Rube, Houston Studio Universal Film Mfg. Co. Clare Studios Marcel Noll's Production Lask Weber Production Grunwald's Theatre, Los Angeles</small>	<small>Strand Theatre, Norfolk, Va. Fitt Theatre, Pittsburgh, Pa. Regent Theatre, Elmore, N. Y. Stanley Theatre, Phila., Pa. David Ficker's Theatre, N. Y. C. Loew's Luxon Theatre, Nashville, Tenn.</small>
---	--

Write for a copy of our circular
No. 1154; it will prove interesting

Westinghouse Electric & Manufacturing Company
East Pittsburgh, Pa.
Sales Offices in all Large American Cities.

Westinghouse

vi



THE NEW PREMIER
PATHESCOPE
Flickerless Safety Standard Projector

This PIONEER in SAFETY PROJECTION easily
maintains the superiority gained in

23 Years of Cinema Supremacy
The Pathoscope Co. of America, Inc., New York.

vii

EASTMAN FILM

is identified by the words
"Eastman" and "Kodak" in
the film margin.


*It is the film that first made motion
pictures practical*

Eastman Kodak Company
Rochester, N. Y.

viii

Advertisements Published in the

**THE MOTIOGRAPH DE LUXE
THE PROJECTOR PREDOMINANT**




Will Give Service That
SERVES

The Enterprise Optical Mfg. Company
564 W. Randolph Street
CHICAGO, ILL.

IX

The New Home of
Victor Picture Projectors



This entire manufacturing plant is devoted exclusively to the production of

**Motion Picture Machines
Stereopticons and
Lantern Slides**

Sixty thousand feet of floor space, plenty of fresh air and sunlight, precision machinery, the best of materials and contented expert workmen, combine in the making of the foremost line of non-theatrical picture projectors in America.

Catalogs and price lists mailed on application

VICTOR ANIMATOGRAPH CO., Inc.
Davenport, Iowa, U. S. A.

X



A Cost Cutter

The Argus-Sheck Universal Adapter for motion picture projection will effect a saving in electrical energy of two-thirds on alternating, and about one kilowatt per hour on direct current service.

That feature alone is sufficient to recommend thorough investigation.

Other very important and desirable features are better illumination from a higher quality light; the elimination of color bands and "ghosts"; the absence of flicker and eye strain, simplicity and ease of operation, and the avoidance of poisonous carbon fumes and dust.

The Argus-Sheck Universal Adapter can be easily and quickly applied to any carbon arc projection machine.

The ARGUS ENTERPRISES, Inc.
General Offices: CLEVELAND

New York
Chicago
Boston
Los Angeles



Omaha
Denver
Des Moines
Salt Lake City

XI

TRANSVERTER

The complete motor generator unit especially designed and constructed to economically deliver to the arc a superior direct current that is always under the control of the operator



The Complete Transverter Equipment

Transverter (double arc type) permits getting two arcs of the same amperage simultaneously and the getting of the second does not disturb the one projecting the picture. This makes possible a perfect dissolve.

Transverter permits increasing or decreasing the arc amperage, without waste of current, by simply turning a control handle and the amperage being delivered remains constant regardless of the changing length of arc.

Transverter embodies many exclusive advantages and meets every requirement of artistic projection.

Please send literature describing Transverter in address on envelope

THE HERTNER ELECTRIC CO.
Cleveland, Ohio

Canadian Distributors
THE PERKINS ELECTRIC CO.
Phillips Square, MONTREAL 11 Temperance St., TORONTO

XII

Transactions of the SMPE, May 1920

PRIZMA

A new method of practical, color motion photography that re-creates Nature on the screen in all her splendid colors.

Entertaining, instructive and altogether delightful.

Now showing in leading theatres.

ASK THE MANAGER OF
YOUR FAVORITE
THEATRE

Distributed by all
SELECT PICTURES
CORPORATION EXCHANGES

XIII

THE GHOST ON THE SCREEN

is caused by the core of the positive carbon burning back in the shell. Users of

SPEER "Directo" Carbons

are not troubled with ghosts because with these carbons

THE CORE BURNS FLUSH

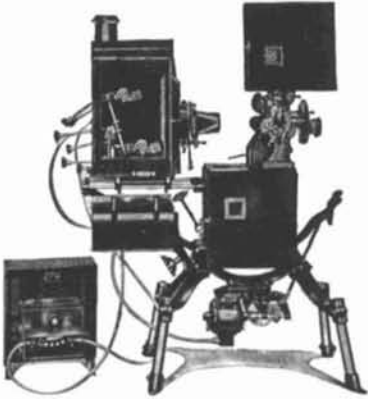
Speer "Directo" and "Hold-Ark" carbons for D. C. Projection. Speer "Alterno" White Combination Carbons for A. C. Projection.

SPEER CARBON COMPANY
ST. MARYS, PENNA.

XIV

POWER'S CAMERAGRAPH

All That Experience, Skilled Workmen and
Finest Materials Can Put Into a Projector.



NICHOLAS POWER COMPANY
EDWARD CARL, PRESIDENT
NINETY GOLD ST. NEW YORK, N. Y.

XV

Government Motion Pictures

Taken of

THE WORLD WAR

Were to be Placed on the Best Made
FILM REEL

It was the

LANG FILM REEL

THAT STOOD UP AGAINST ALL TESTS

Mr. CARL J. LANG of

The Lang Manufacturing Works was awarded the contracts for several thousand of the Lang Patented Reels.

Our Government also used 660 of these reels at the Panama-Pacific Exposition.

The best theatres in this and foreign countries use the Lang reels in booths. The Lyman H. Howe attractions use them.

Made under the Lang Patent of Nov. 21st, 1911

THE LANG MFG. WORKS
OLEAN, NEW YORK U. S. A.

— The Rewinder People —

XVI