

Fig. 8. Prototype made by Ball of the Art Reeves Sensitester.

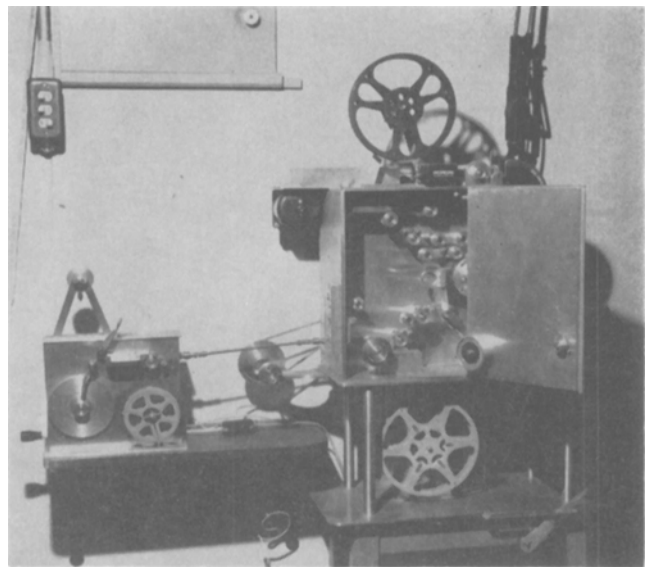


Fig. 9. 16mm printer and control mechanism.

fortunately, although the major Hollywood studios were interested, the advent of "talkies" and the depression put it out of consideration.

In the 1930's, Ball built and used machines that were prototypes for Art Reeves' marketing organization, including a bottom-drive processor in which the entire rack-and-roller assembly was lifted out of solution during shutdown, (Fig. 7), a scene tester (called Sensitester by

Reeves), shown in Fig. 8, a sound recorder transport, to which Reeves added a glow tube, and a microphone boom.

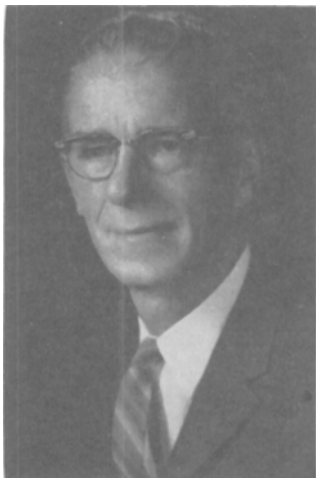
In later years, Ball changed over his laboratory functions completely to 16mm and made more equipment just for his own use, such as a jewel-like continuous printer resembling a miniature Bell & Howell model J. It is "daylight" operated and uses a control strip running at  $\frac{1}{4}$  speed to avoid

any necessity of notching the original film (Fig. 9).

The printer is still in use in San Francisco today. Interestingly, its present owner has added another chapter to the story by converting it to super 8.

A member of the Society since 1941, Ball was made a Fellow in 1958 in recognition of his many outstanding contributions to the motion-picture industry.—*William A. Palmer*

## Biographical Notes



### Charles R. Fordyce Retires

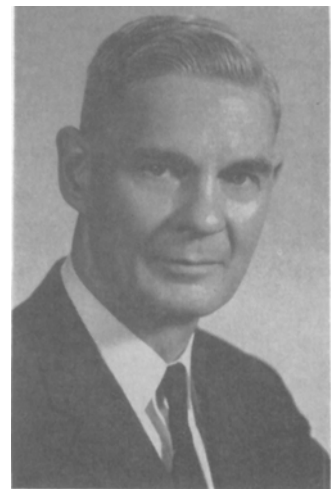
Charles R. Fordyce, whose achievements include the development of triacetate safety base film, was born in 1902 in Springville, IA. He attended Cornell College in Mt. Vernon, IA, where he was granted the degrees of Bachelor of Arts and Master of Arts. He then attended Cornell University in Ithaca, NY, where he was granted the PhD degree in 1929. That same year he joined Eastman Kodak Company as a chemist, beginning a career that was to be marked by many achieve-

ments. At the time of his retirement on January 1, 1967, he was Technical Advisor to the General Manager of Kodak Park Division.

He began his work with cellulose esters in 1930 and devoted the following 15 years to research on the manufacture of cellulose derivatives and their commercial uses for photographic film base and for plastics. He became Supervisor of the Cellulose Acetate Development Department on December 31, 1931. In 1944 he was transferred to the Manufacturing Experiments Division in Kodak Park as Assistant Superintendent in charge of development of safety motion-picture film support. In 1947 he was appointed Superintendent of the Manufacturing Experiments Division and in 1958 he was appointed Technical Advisor to the General Manager.

Dr. Fordyce joined the Society in 1947 and he became a Fellow in 1949. In 1950 he received the Samuel L. Warner Memorial Award for his work on triacetate safety base film. He is the author of a number of technical papers; those which appear in the *Journal* include "Improved Safety Motion-Picture Film Support" (Oct. 1948) and (with J. M. Calhoun and E. E. Moyer) "Shrinkage Behavior of Motion-Picture Film" (Feb. 1955). His services to the Society include chairmanship of the Admissions Committee and he has also served, for many years, on the Board of Editors.

Membership in organizations other than the Society include the American Chemical Society in which he served as Secretary of the Division of Cellulose Chemistry (1939-1944) and as Chairman in 1948. He is also a member of Sigma Xi, honorary scientific fraternity, and of Phi Beta Kappa.



### Rudolf Kingslake Now Retired

Rudolf Kingslake, a scientist, writer, editor, educator and internationally known authority on lens design, retired January

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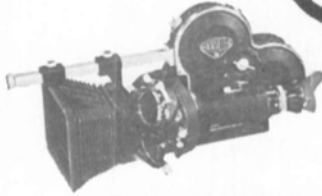


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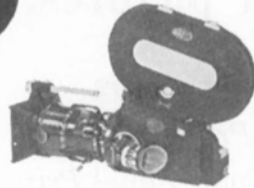
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## ARRIFLEX CAMERAS AND ACCESSORIES



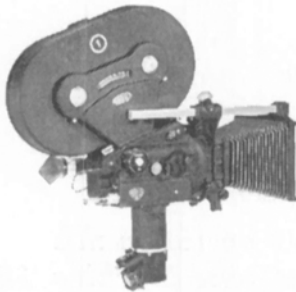
### ARRIFLEX 16mm STANDARD

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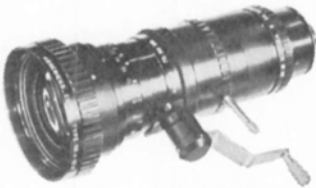
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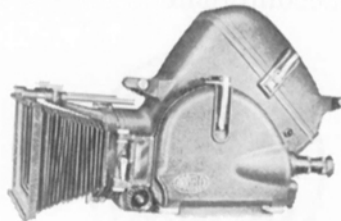
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1, 1969, as Director of Optical Design and Optical Engineering at the Kodak Apparatus Division, Eastman Kodak Co. He had been with Kodak since 1937 when he joined the Scientific Department of the Hawk-Eye Works (later known as the Optical Design Department). In 1939 he became head of the department.

He was educated in Great Britain and was granted the degrees of Bachelor of Science (1924) and Master of Science (1926) by the Imperial College of Science and Technology, London. He was awarded a Beit Fellowship in Optics from 1925 through 1927. He received the degree of Doctor of Science from the University of London in 1950. Following graduation from the Imperial College, he worked on optical design for Sir Howard Grubb, Parsons & Co., and from 1928 to 1929 he was engaged in telephone research engineering for International Standard Electrical Corp. He came to the United States in 1929 to accept a post as professor of geometrical optics and lens design at the University of Rochester.

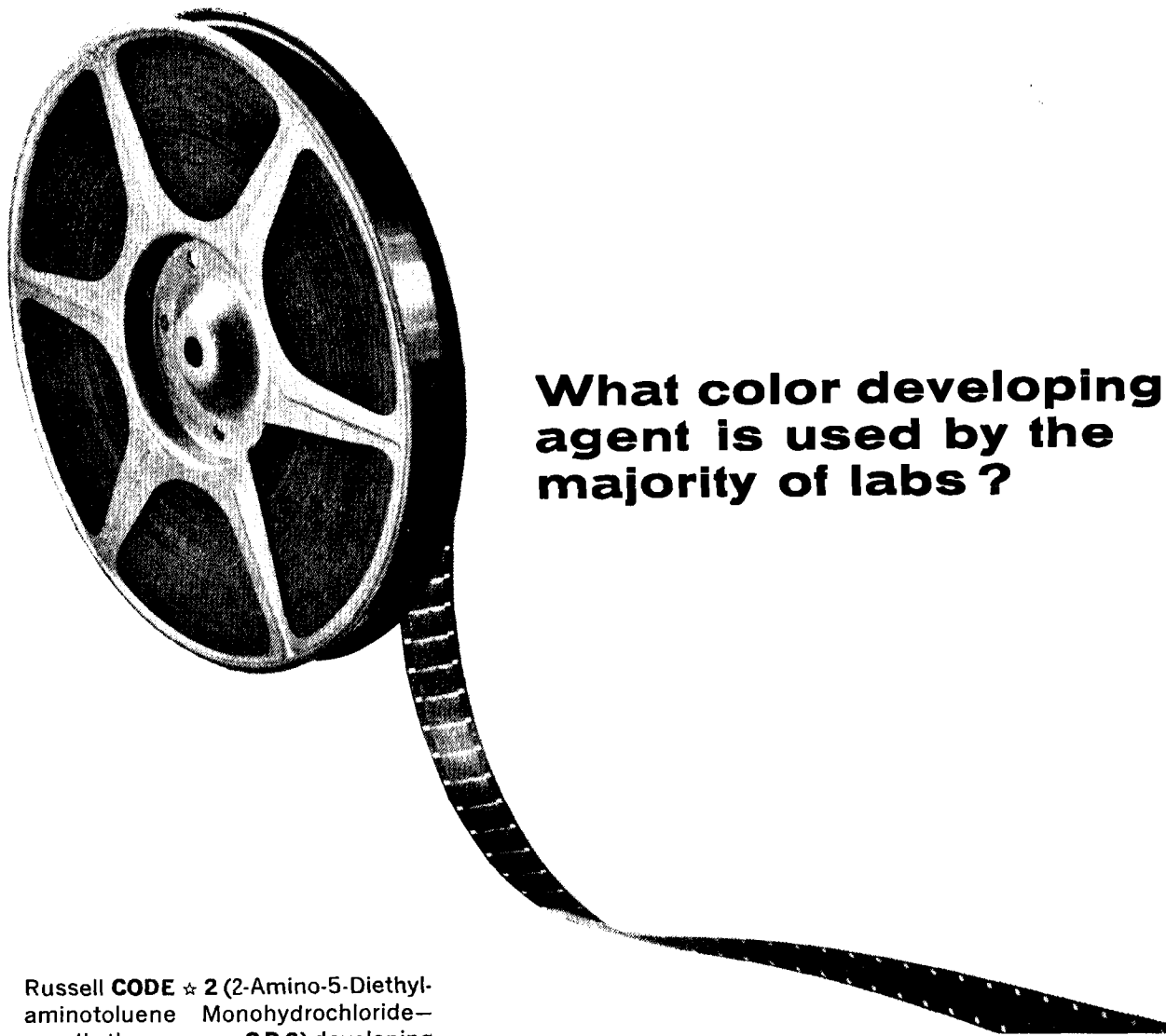
In commenting on this move, Dr. Kingslake said, "Besides my interest in lenses, I had always felt that I would like to be a teacher, and when in 1929 I was offered a position on the faculty of the newly-formed Institute of Applied Optics at the University of Rochester, I jumped at the opportunity of combining two interests in one."

When he joined Eastman Kodak as lens designer in 1937 at the request of the late C. E. K. Mees, then head of Kodak Research Laboratories, he felt that he "could not possibly refuse this magnificent opportunity," as he related many years later when he was awarded the SMPTE Progress Medal at the 97th Conference (1964). However, he continued to teach evening classes in lens design at the University of Rochester.

Dr. Kingslake holds a number of patents and he is the author of more than 60 papers which have appeared in scientific publications throughout the world. Among the more recent papers by Dr. Kingslake that have appeared in the *Journal* are "The Reversed Telephoto Objective — A Tutorial Paper" (March 1966), "Telephoto vs. Ordinary Lenses — A Tutorial Paper" (December 1966), "The Development of the Zoom Lens" (August 1960) and "The Optics of the Lenticular Color-Film Process" (January 1958). He is the author of articles on optics and lenses in the *Encyclopedia Britannica* (the 1951 and 1958 editions) and he served on the committee of experts, of which Glenn Matthews was chairman, to revise the photographic and motion-picture terms for *Websters Unabridged Dictionary* (3d Ed.). He is the author of *Lenses in Photography* and the Editor of the monumental five-volume work, *Applied Optics and Optical Engineering: A Comprehensive Treatise*.

He has been a member of the Society since 1940 and he was made a Fellow in 1952. He received the Progress Medal Award in 1964 for "his many contributions, improvements and inventions in the field of geometrical optics and lens design." The citation also noted his "ability to write lucidly on technical subjects."

Organizations other than the *Society* of which Dr. Kingslake is a member include



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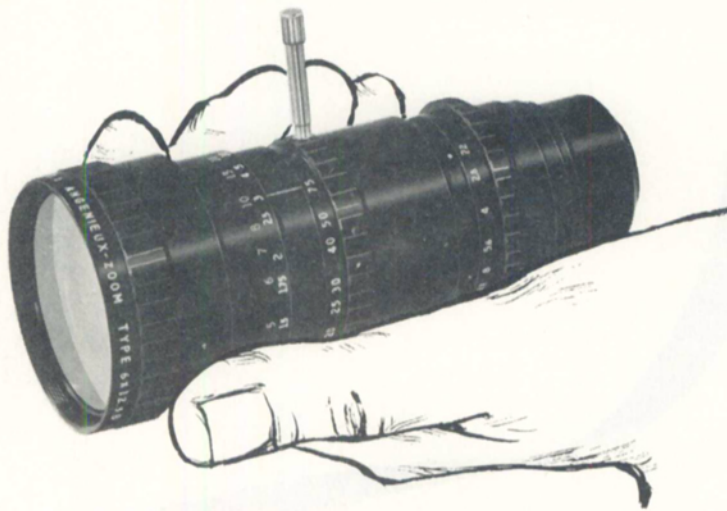
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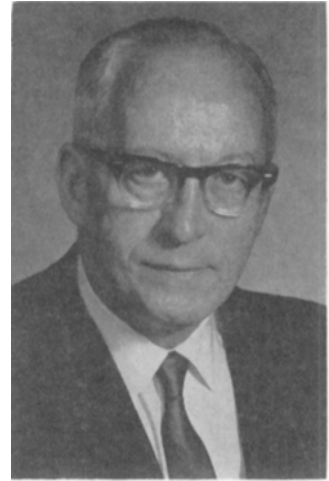
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the Optical Society of America of which he is a Fellow and which he has served as President and Vice-President. He is also a Fellow of the Society of Photographic Scientists and Engineers and a member of the Physical Society of London.

Over the years his many friends have wondered how one man could so successfully combine the careers of lens designer, writer and educator. Glenn Matthews, a long-time friend said of him, "In my opinion, this very modest, quiet-spoken man is one of the most distinguished and capable scientists in the field of optics in this country. He is always willing to help others and he is a well of information in his chosen field of optical design."



Walter Irvin Kisner

A well-known technical writer and editor, Walter Irvin Kisner, announced his retirement on January 1, 1969, after 34 years of service with the Eastman Kodak Company. He has long been an active member of several Committees of the SMPTE, including the Progress Committee and the Publications Advisory Committee. He has also served for many years on the Board of Editors; he served a two-year term on the Board of Governors. His services to the Society are perhaps best known for his chairmanship of two subcommittees: the Subcommittee on Control Techniques in Film Processing of the Laboratory Practice Committee and the Subcommittee for Tutorial Papers of the Paper Committee.

At the fall conference of the Society in 1957, it was proposed that the Laboratory Practice Committee undertake the preparation of a booklet dealing with the principles and methods of process control of black-and-white motion-picture film. Walter Kisner was asked to head this subcommittee and agreed to serve as coordinator and editor. He selected a group of 31 engineers and scientists to serve as authors and reviewers. The task force began its work under his supervision early in 1959. It was a complex operation to get the draft of each of the 10 chapters written, illustrated and approved. Kisner wrote or rewrote several of them and drew many of the charts. The book was completed and published in the incredibly short time of little more than one year. It was reprinted in a second large edition in 1965 and has been highly

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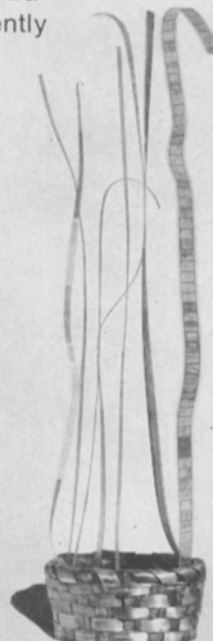
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praised as a useful reference. It has been published in the Japanese language and also in German.

It has long been recognized by the Editors of the *SMPTE Journal* that a great need exists at all times for publishing occasional papers that review and summarize the status of important aspects of motion-picture and television engineering and photoinstrumentation. In 1961, at the request of the Editorial Vice-President [then Glenn E. Matthews] Kisner agreed to head a Subcommittee of the Papers Committee and attempt to get competent authors to prepare tutorial papers. In the intervening years to the present day he has pursued his assignment diligently and at least a dozen informative articles have been obtained and published. These papers have supplied information of great value to many readers and provide a most useful future reference. Kisner also served on the Special Committee appointed in 1956 by the Color Committee to prepare *Elements of Color in Professional Motion Pictures*. The book was published by the Society in 1957.

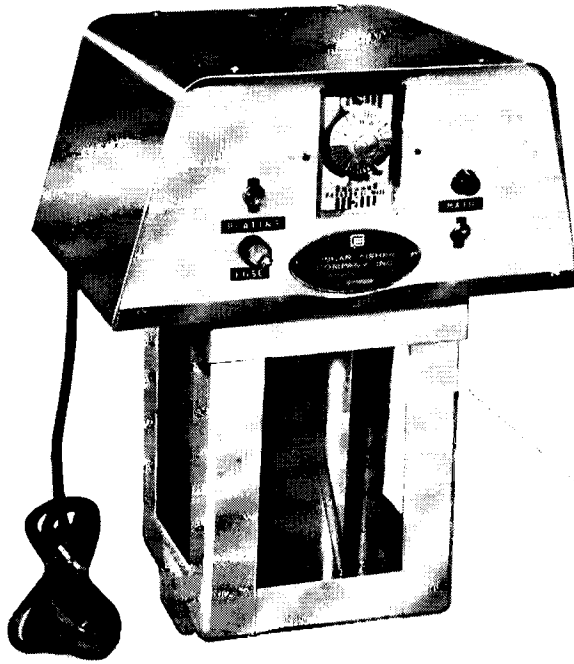
Walter I. Kisner was born in September, 1908, in California, PA. He received a Bachelor of Science degree from Case School of Applied Science (now Case-Warren Reserve University) in 1934. He took nearly eight years to go through college while he earned all of his expenses. He worked for Union Carbide and Carbon Co. and did several different jobs at the Strand Motion Picture Theater (Cleveland), including projectionist and playing the organ. Another job which may be looked on as the beginning of his editorial experience was in connection with the well-known *Rubber Handbook of Chemistry and Physics* for which he did considerable proofreading.

His career with the Kodak Company began in November 1934, as a physicist in the Research Laboratories. In April 1938, he transferred to Eastman Kodak Stores, Inc., New York, as a consultant for amateur and professional customers, giving technical information and answering correspondence. During World War II he worked for 14 months as a civilian employee of the General Chemical Defense Corp., Point Pleasant, WV, in the capacity of supervisor and instructor on chemical analysis in the production of explosives.

From 1943 until 1946 he served as a quality-control engineer at the Camera Works plant of Eastman Kodak Co. in Rochester, N.Y. From 1946 until 1949 he worked as an instructor in the Photographic Training Department at Kodak where he prepared manuals and gave lectures for 56 courses. In 1949 he was appointed Technical Editor and Service Engineer in the Motion-Picture Film Dept. at the main office of the Kodak Company. Kisner's greatest contribution to the motion-picture industry spans the last nineteen years during which he was chiefly responsible for all the technical manuals and instruction sheets on professional motion pictures issued by the Kodak Company. These pamphlets provided basic technical data on many subjects and were used by thousands of

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technicians in the industry in this country and abroad. In Japan the Kodak handbooks on Eastman Color films were praised highly by the laboratory technicians.

Kisner also wrote a number of papers on motion-picture techniques and products which have been published in the *Journal*. These papers are models of clarity and accuracy of expression and reprints of them have been widely distributed.

When the Kodak marketing reorganization was begun in 1965, he was transferred to the Motion Picture and Education Markets Div. as a Technical Specialist and continued in that capacity until his retirement.

Kisner is a member of Tau Beta Pi, honorary engineering fraternity. He is a Fellow of the SMPTE and in 1968 was named an emeritus member of the Optical Society of America, in 1968 of which he had been a member since 1948. Intensely interested in music since early childhood, he has continued this interest throughout his life. His specific concern is with organ music and organs. For several years he has been planning and constructing a 3-manual theater organ which he hopes to install in his future home in San Francisco.

On December 17, 1968, Kisner was honored by the Red Apple Club, a group of Kodak writers and editors in Rochester, NY. He was presented the Matthews Red

Apple Award for 1968 in recognition of his contributions in technical motion-picture writing. When presenting the award to him, the chairman noted that Walter Kisner exemplifies the outstanding attributes of a good writer: clarity, accuracy, conciseness and integrity. His contributions to world literature on motion-picture technology have been outstanding and should provide valuable references for many, many years. — *Glenn E. Matthews*, 55 Stoneham Rd., Rochester, NY 14625.



### Gentry Veal Retires

Thomas Gentry Veal, Sr., a leading authority on several aspects of television, and especially on the applications of motion pictures to television, retired in January 1969 after 32 years with the Eastman Kodak Co., most of that time in the Research Laboratories.

He has been actively associated with the Society for many years. He became a member in 1949, and was elected a Fellow of the Society in 1953. His longest period of activity has been on the Television Committee of which he was Chairman from 1954 through 1960 and he continues as a member of that committee. Other Engineering Committees on which he served were Television Studio Lighting, Video-Tape Recording, and Standards. He also rendered valuable service as Chairman of the Television Committee's Subcommittee on Color Temperature of Color Monitors and Color Television Receivers. He is Chairman of the Journal Award Committee, on which he has served since 1960.

He is a member of the Television Systems Committee of the Electronic Industries Association. He is also an active member of the Institute of Electronic and Electrical Engineers and an advisor to the Electrical Institute Publications.

T. Gentry Veal was born in Shelbina, MO, October 3, 1903, and attended Westminster College in Fulton, MO. He continued his studies at the University of Rochester and the Rochester Institute of Technology.

He began his career with Eastman Kodak in the Physics Division of the Research Laboratories in January 1937 where he did research on motion-picture sound recording. In March 1943, he was transferred to the Clinton Engineer Works at Oakridge, TN. Here he became Superintendent of the Alpha Division of the Man-

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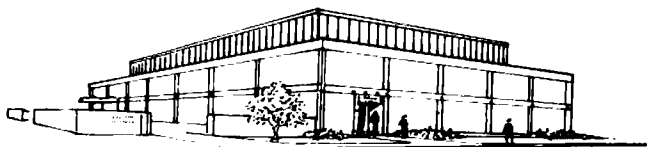
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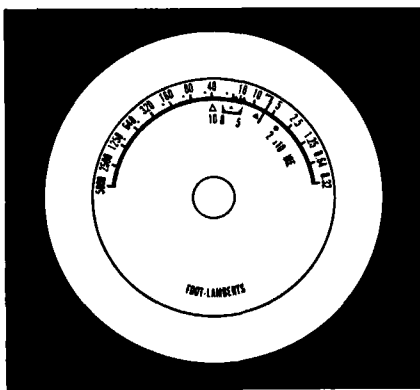
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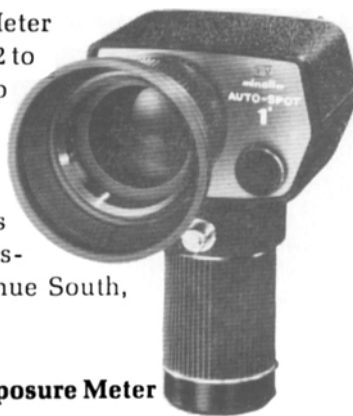
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**Minolta Auto-Spot 1° TV Exposure Meter**

hattan Project. During this assignment, he spent about six months at the University of California at Berkeley.

In May 1946, he returned to the Kodak Research Laboratories where he carried out research on the development of films for television. In October 1957, he was appointed an assistant division head of the Physics Division of the Research Laboratories. In 1964 he was placed in charge of the Electro-Mechanical Laboratory in the Physics Division. During those years he supervised research on many engineering projects including applications of film to television, optical and magnetic sound recording, direct electron recording on film and reproduction of color through film-video chains.

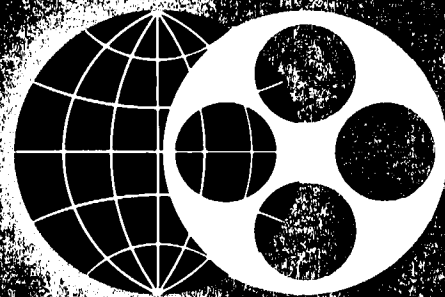
Gentry Veal is the author or coauthor of several scientific and engineering publications, such as "Dynamic Transfer Characteristics of a Television Film Camera Train," "Use of Color Filters in a Television Film Camera Chain" and "Subject-Lighting Contrast for Color Photographic Films in Color Television," all published in the *Journal of the SMPTE*.

He was presented two Certificates of Honorable Mention by the Clinton Engineer Works in 1947 for meritorious services in administration. He also received a Certificate of Appreciation in 1964 from the University of Southern California in recognition of outstanding services to the class on television: Current Techniques and Film Practices.

Highly regarded by his associates in his chosen field, Veal is distinguished by his thoughtfulness and willingness to assist others, especially the younger men in his profession. He is noted for his very sound, practical approach to problems and his ingenuity in solving them. In his retirement, it is encouraging to note that he plans to continue to be active in the Society and in the television field.—*Glenn E. Matthews*, 55 Stoneham Rd., Rochester, NY 14625.

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