Obituaries

Karl Freund

Karl Freund, who died on May 5, 1969, in Santa Monica, CA, at the age of 79, has long been in the history books as one of the authentic "greats" of cinema for his artistic and technical achievements. Freund's use of the moving camera in *The Last Laugh* (UFA, 1924) is repeatedly cited as an important influence on the artistic development of motion pictures, with today's hand-held cameras and the new realism owing much to Karl Freund's innovation in that film. The 1925 Emil Jannings film *Variety* is often described as not only a technical achievement but also as brilliantly photographed by Freund.

Karl Freund was born in Königinhof, Bohemia (now Czechoslovakia), in 1890. His career in motion pictures began in Germany when he became a projectionist at the age of fifteen. The following year the Berlin Fire Department issued to the young projectionist its first license for projection of the (then) dangerously flammable film.

In 1908 he handled a motion-picture camera for the first time. For the next 50 years he spent much of his time behind the camera, photographing most of the well-known stars of Europe and Hollywood. In 1937 he received an Academy Award for his filming of *The Good Earth*.

His versatility and creativity appeared before he was twenty when he devised an ingenious means of recording sound when filming Enrico Caruso. This was in 1909. The technique adumbrated the playback system later used in making musicals. Having no electrical synchronization, he connected the gramaphone to the camera by means of a flexible shaft. To project the picture, a 300-ft shaft connected the projector to the gramophone which was in front of the screen. A mechanism on the projector resembled a clock, with one hand for the record and the other hand for the film. The record and the film started together at given marked points and the projectionist had to make sure the two hands stayed together.

In 1919 he established a film processing laboratory where he developed the first soundtrack film for the three partners who organized the TriErgon Corp. (Voigt, La Salle and Engle). Years later he revealed that he had had the opportunity of acquiring more than 300 sound patents for the sum of $25,000 — an impossible sum at that time.

He continued to be intensely interested in sound — indeed in all aspects of the arts, science and techniques of motion picture — and in 1927 he went to London where he organized the Blatnerphone Corp. to develop and promote magnetic wire recording and where he constructed a recording machine using 16mm perforated steel tape.

In 1928 he became interested in a three-color additive color process for motion pictures, using lenticular embossed reversal film material. Black-and-white film was exposed through a three-color filter and projected through the same filter to produce a color picture on the screen. A special showing of the process was presented to Herbert Kalmus, President of Technicolor, in London. This was one of the links in the chain of events that brought Karl Freund to the United States in 1929 to work with Technicolor on the process; however, after a year he returned to camera work.

He worked at first as director and cameraman for Universal, then he went to MGM and then to Warner Brothers. In 1951 he became involved with television and was with Desilu productions for several years as Director of Photography. For audience participation shows he devised a multiple-camera setup that is now widely used throughout the industry.

As a result of his interest in light and its measurement, in 1944 he established Photo

cognoscat emptor!*

A portable professional 16mm motion picture camera of the silenced type represents an investment equalling or exceeding the cost of a luxury automobile. Before making such an investment, you want as much information as possible on which to base a decision. Here are some facts:

To begin, the only truly "noiseless" camera is one that's not running. But there are **quiet,** self-blimped cameras. Of these, some are more quiet than others, and some remain quiet while others get noisy with use.

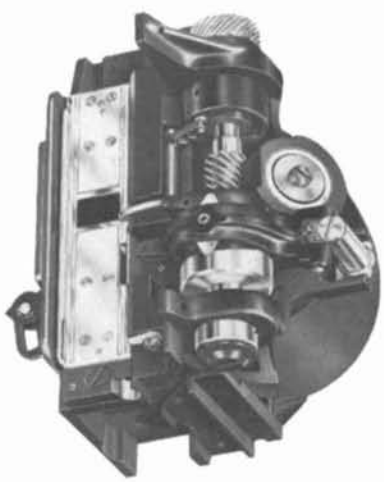
The purpose of every professional motion picture camera is to produce sharp, steady footage. To accomplish this, a motor has to transport the film from a feed roll through a sprocket drive to an intermittent movement (consisting of shutter, film transport claw and registration pin) to another sprocket drive, to the take-up roll. All these components must create noise as must the other features that a professional camera needs, like a tachometer and geared footage and frame counter.

It is easy to suppress such camera noises by placing the camera mechanism in a sound absorbing blimp. The heavier the blimp, the easier it is to contain noise. No problem with tripod supported studio cameras that weigh a hundred pounds or more. But a tough job when light weight and compactness are important for easy portability and hand- or shoulderheld use.

No wonder that some designers try to solve the problem by cutting mechanical corners to obtain acoustical advantages.

Like trying to reduce noise by sacrificing a precise, reliable cam driven registration pin movement which can run forward and reverse—we wouldn't make a 16mm Arriflex without it—for a spring-activated "register claw" which limits film to run forward only and may immobilize the entire camera if the spring fatigues in cold weather or "sticks" in hot weather.

Like trying to reduce noise by sacrificing a gear-driven tachometer—we wouldn't make a 16mm Arriflex without it—which tells you not only frames per second but, also, if your camera is out of synch.



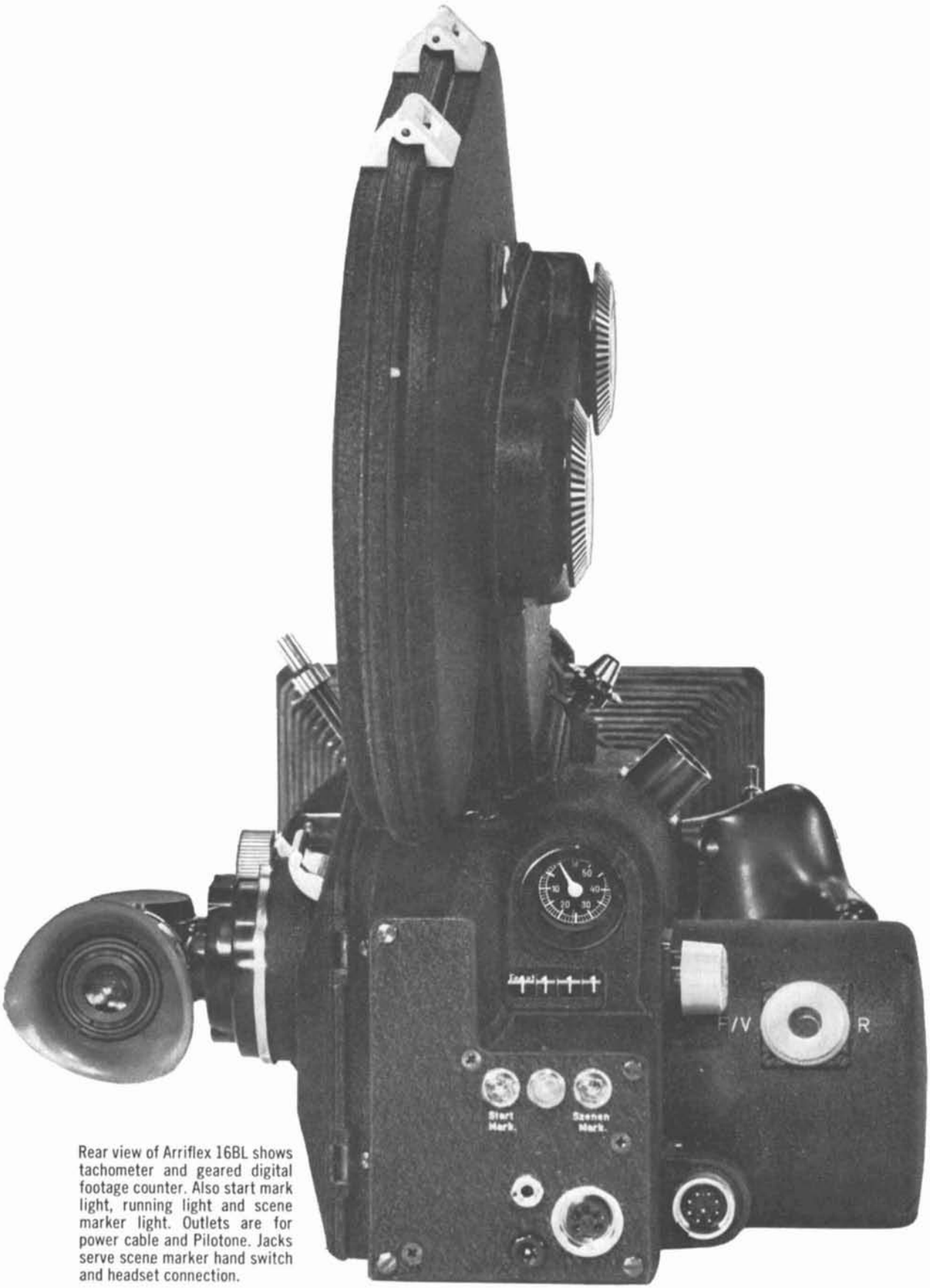
Precision Film Transport and Shutter Mechanism, the heart of all Arriflex 16 cameras. Pulldown and registration pins are positively controlled by compound cams, machined to closest possible tolerances.

Like trying to reduce noise by sacrificing a geared precision footage and frame counter registering forward or backward—we wouldn't make a 16mm Arriflex without it—which lets you locate and relocate every frame and control every foot. A feeler counter alone (which every Arriflex magazine also has) would never satisfy us because it can only give approximate footage.

There are no mechanical compromises made nor features sacrificed in the portable Arriflex 16BL that is built to proven standards of Arriflex reliability and ruggedness, and that runs as quietly after a million feet as after the first hundred!

Silenced professional motion picture cameras are a capital investment. Investigate before you invest!

***let the buyer be informed**



Rear view of Arriflex 16BL shows tachometer and geared digital footage counter. Also start mark light, running light and scene marker light. Outlets are for power cable and Pilotone. Jacks serve scene marker hand switch and headset connection.

Research Corp. to develop and manufacture light-measuring instruments.

Dr. Freund joined the Society in 1929. It was shortly thereafter that he arrived in the United States. He became a Fellow in 1952. He was active in Society affairs and several of his technical papers have appeared in the *Journal*, among them (with Frank Crandell and Lars Moen) "Effects of Incorrect Color Temperature on Motion-Picture Production" (July 1950); "Shooting Live Television Shows on Film" (January 1953); (with Frank Crandell) "New Photoelectric Brightness Spot Meter" (August 1953, Pt. II); and "Improved Television Viewfinder for Motion-Picture Production" (November 1958).

Among organizations other than the Society of which he was a member are Photographic Society of America (of which he was a Fellow), American Society of Cinematographers, Screen Directors Guild, Illuminating Engineering Society, U.S. National Committee for the International Commission on Illumination, and the Inter-Society Color Council.

Edit. Note: An evaluation of Karl Freund's work appeared in the February 1963 issue of *Films in Review* ("Karl Freund" by Herbert G. Luft, pp. 93–108). "Meet Karl Freund: Mr. Photo Research," by George J. Toscas, appeared in *International Photographer*, October 1960, pp. 212–213, 222. Besides *From Caligari to Hitler: A Psychological History of the German Film* by Siegfried Kracauer (published by Noonday Press, but now out of print), histories citing Karl Freund's contributions are Arthur Knights' *The Livelist Art* (1957) and Kenneth MacGowan's posthumous book *Behind the Screen* (1965).

Joseph A. Tanney

Joseph A. Tanney died April 24, 1969, in Miami. Formerly President of S.O.S. Photo-Cine-Optics, he retired in 1963. His career in the motion-picture industry began about 1920 at the Metropolitan Studio, Fort Lee, NJ. In 1926, he was cofounder of a company called Service on Sound. Some 10 years later the company was merged with a theater equipment company and the name was changed to S.O.S. Cinema Supply Co. In 1961 the name of the firm was changed to S.O.S. Photo-Cine-Optics to reflect its expansion and varied interests.

Mr. Tanney joined the Society in 1934 and became a Life Member in 1963. Through the years he maintained an active interest in Society affairs. "The Bridgamatic Developing Machine" is a paper by Mr. Tanney and Edward B. Krause that appeared in the March 1953 issue of the *Journal*.

On the occasion of his retirement, he was guest of honor at a testimonial luncheon at the Traymore Hotel in Atlantic City. The event was planned to coincide with the Society's 93d Technical Conference to enable Mr. Tanney's many friends in the Society to attend (*Journal*, p. 428, May 1963).

Walter Beyer

Walter Beyer died January 12, 1969, at his home in Hollywood. He was born November 29, 1913, in Leipzig, Germany. He was educated in Leipzig and was graduated from the Engineering College of the City of Leipzig in 1936 with a degree in Electrical Engineering. He joined the Cinematographic Department of Askania Works in Berlin where he remained until World War II when he was transferred to the Division of Scientific Instruments and in 1945 he was appointed head of the Division of Motion Picture Equipment. In 1948 he moved to Weisbaden as head of the camera department of Filmstudios. He came to the United States in 1951 where he was employed by Bell & Howell as a laboratory engineer. He became a citizen of the United States in 1957.

In 1952 he moved to Hollywood where he was employed by Paramount Pictures as a special projects engineer. The projects included remote-controlled lamps, design of stereo-camera setups and experimental work for stereo. In 1954 he left Paramount to join the staff of Motion Pictures Research Council and in 1957 he was elected Assistant Secretary of the Board of Directors. MPRC was disbanded in 1960 and Mr. Beyer joined Universal Pictures Company as head of research engineering, the position he held at the time of his death.

Mr. Beyer joined the Society in 1952 and he was made a Fellow in 1959. He

served on the Film Projection Practice Committee, of which he was Chairman during 1960.

He published numbers of technical papers in scientific and technical journals in Germany and in the United States. Among papers of which he is the author that appears in the *Journal* is "Traveling-Matte Photography and the Blue Screen System" (in the March 1965 issue) — a five-part paper which presents the technical details of the traveling-matte process. Other *Journal* papers of which Mr. Beyer is the author include "A New Cartridge-Type Projector for Home Motion Pictures and Other Applications" (June 1961) and "Research Council Developments for Better Theater Projection" (November 1960).

Organizations other than the Society of which Mr. Beyer was a member include the American Society of Cinematographers (ASC), Society of Photographic Scientists and Engineers, and Optical Society of America. At the time of his death he was Chairman of the ASC Research and Educational Committee.

W. Arthur Steele

W. Arthur Steele died November 28, 1968, in Ottawa, Canada, at the age of 78. A graduate of Toronto University, he served for 10 years (1920–1930) with the Canadian Army where he attained the rank of Lieutenant-Colonel. In 1932, he was appointed Commissioner of Engineering Operations of the Canadian Radio Broadcasting Commission, the forerunner of CBC. During his tenure, he was instrumental in setting up new facilities, including a shortwave receiving station to relay programs from England. Under his tutelage, the Commission conducted engineering surveys and gave technical assistance to many private stations to improve broadcast quality and reception. He was also instrumental in developing and enforcing technical regulations.

In 1936, when CBC was established, Col. Steele became a consultant in the field of radio engineering. About 10 years later he joined Federal Electric Manufacturing Company in Montreal as a radio engineer.

He became a member of the Society in 1952. He was also a member, for many years, of the National Film Society of Canada.—*Michael Barlow*